

THE Lightning Columne OR SEA MIRROUR,

Containing

The Sea-Coasts of the Northern, Eastern and Western Navigation: Setting fort in divers neceſſaire Sea-Cards all the Ports, Rivers, Bayes, Roads, Depths and Sands; very curiouſly placed on its due Polus-height furniſhed. With the diſcoveries of the chief Countries, and on what cours and diſtance they lay one from another. Never there to fore ſo clearly laid open, & here & there very diligently bettered & augmented for the uſe of all Sea-men.

AS ALSOO THE

Situation of the Northernly Countries, as Iſlands, the Strate Davids, the Iſle of Ian Mayen, Bears Iſland, Old Greenland, Spitsbergen, & Nova Zembla: Adorneth with many Sea-Cards & Diſcoveries.

Gathered out of the Experience and Practice of divers Pilots and Lovers of the famous Art of Navigation.

Whereunto is added a brief Inſtruction of the Art of Navigation, together with New Tables of the Suns Declinaiſon, with an New Almanach.

AT AMSTERDAM,

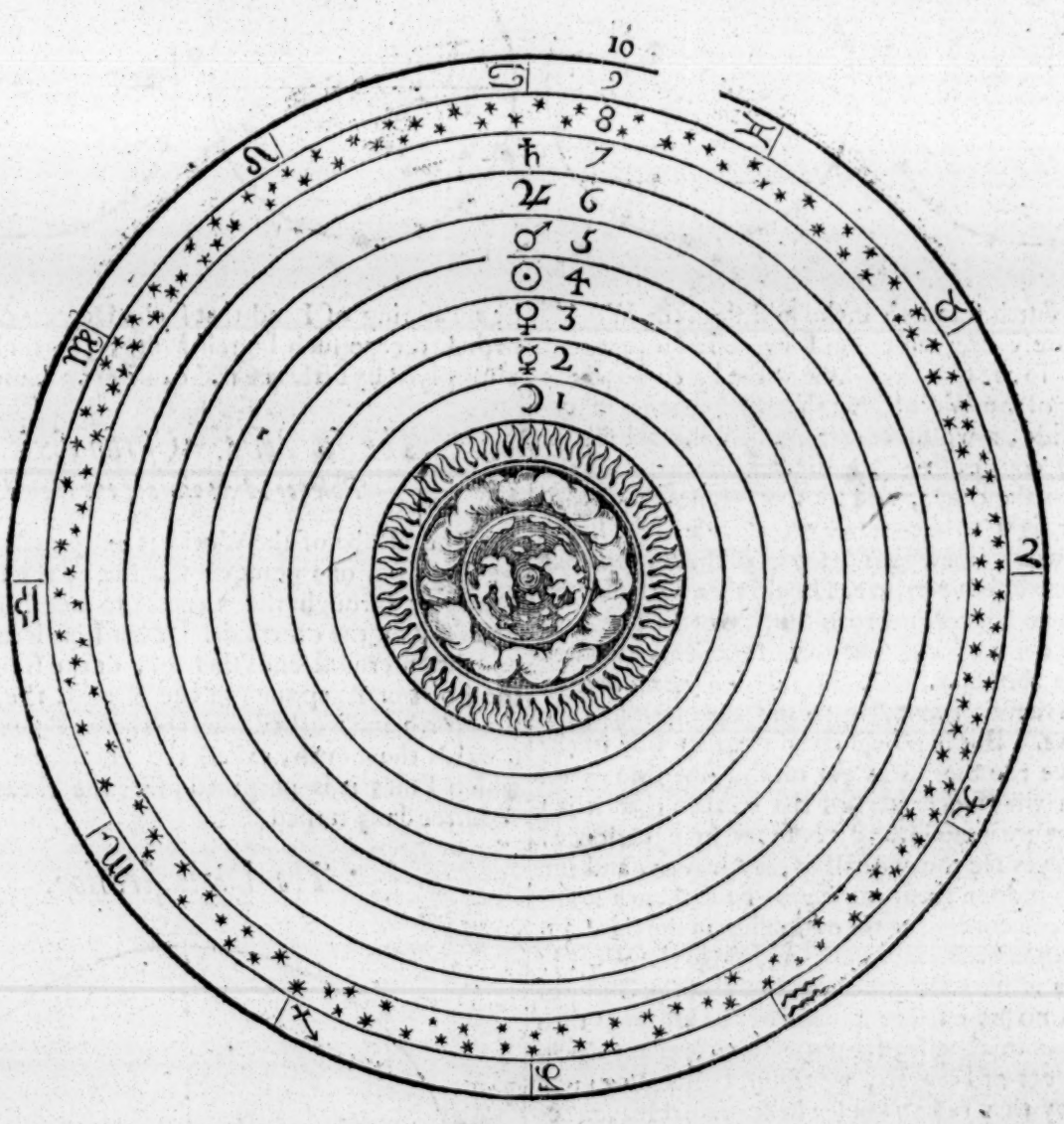
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A SHORT
Instruction in the art of Navigation.

THe art of Navigation is a Science by which through certaine rules you may ſteere a Shipp over the Seas from one place to another, and is not improperly devided into two parts, to witt, into ordinary and extraordinary Navigation. The ordinary Navigation uſeth no other Inſtruments, then the Compaſſe and ſounding Plummet, as principally conſiſting in experience and practice, in knowledge of Lands and Corners, how they are different in Points and diſtances and are knowne from the Sea, in depths, ſhoales qualityes of grounds: the running and falling of Streames; upon what point the Moone maketh high water in every ſeverall place & ſuch like which in part are learned from the information of experienced Pilots, but moſt out of our ouwe experience.

Extraordinary Navigation uſeth beſides the foreſayd ordinary practiſe divers other private Inſtruments and rules which muſt bee taken out of Aſtronomy and Coſmography. It is therefore needfull that every Pilot who will uſe and practiſe this extraordinary Navigation, muſt firſt of all bee well inſtructed in the principales of the ſame Arts, that is, that hee know & underſtand the proportions and deviſions of the Spheare of the World, the Motions of the Heavens, eſpecially the eight, fourth and firſt, together with the Fabrique of the Inſtruments, without which knowledge its impoſſible to accompliſh happily, greate & never before ſouth out Voyages over the Vaſt Seas. And ſeeing that ſuch knowledge may bee attained out of good Inſtruction wee have here ſet downe in this Tractate for the benefit of young ſeamen who are deſirous to bee Pilots as cleare and plaine rules as the ſhortneſſe here of could ſuffer.

The firſt Point. Of the Spheare and the divers motions thereof.



A Spheare properly is called a Ball, wholly entire and round, whoſe ſuperfices and outſide is every where alike diſtant from its center, By that World *Sphæra Mundi*, or Spheare of the World, wee underſtand commonly the whole Ball of the Heavens with all that is therein contained; & it is devided into two parts Elementary & Celeſtiall, the Elementary part hath againe 4 parts: the Firſt is the Earth, which with the water as the ſecond maketh a compleate Ball upon which wee dwell. The Third is the Aire encompaſſing the Earth and the fourth is the fire, which according to the opinion of Philoſophers containeth the ſpace which is betweene the Aire and the Sphera of the Moone. From theſe Elements (which are the beginning of all things) which are alwayes ſubject to changes, together with the Warmth of the Heavens ariſe and periſh by a continuall change and alteration of the one into the other, all things which wee ſee and find upon Earth.

The Celeſtiall part (containing within in its Hollowneſſe the Elementaryes) is pure ſhining, ſeperate and voyd of all changes, is devided into 8 Spheares or round Hollow Balles, which are called Heavens, whereof the greateſt alwayes containeth one the other in manner of a Ball, the ſeaven loweſt have but every one

Starre or Plannet, whereof the first (next the Earth) is the Heaven of the Moone, the second of Mercury, the third of Venus, the fourth of the Sunne, the fifth of Mars, the sixth of Jupiter, the seaventh of Saturne, and the eight of all the fixed starrs. The Number of these Heavens are knowne by thier Courses which wee see in then round about the Poles of the Zodiaque. The Moone runneth through her Heaven by her owne naturall course from West to East in 27 dayes, 8 howres, Mercury Venus & the Sunne theirs in a yeare. Mars his in two yeares, Jupiter his in 12 and Saturne in 30 yeares. The eighth heaven perfects its owne course, according to the affirmation of *Tycho Brahe* in 25400 yeares; These Heavens are turned about all alike in four and twenty houwres on the Poles about the Axes of the World by the Ninth Heaven, which is called the *Primum mobile*, that is the first Mover by which Motion in our sigt is causeſd Day and Night, and the daily rising and falling of the heavenly lights.

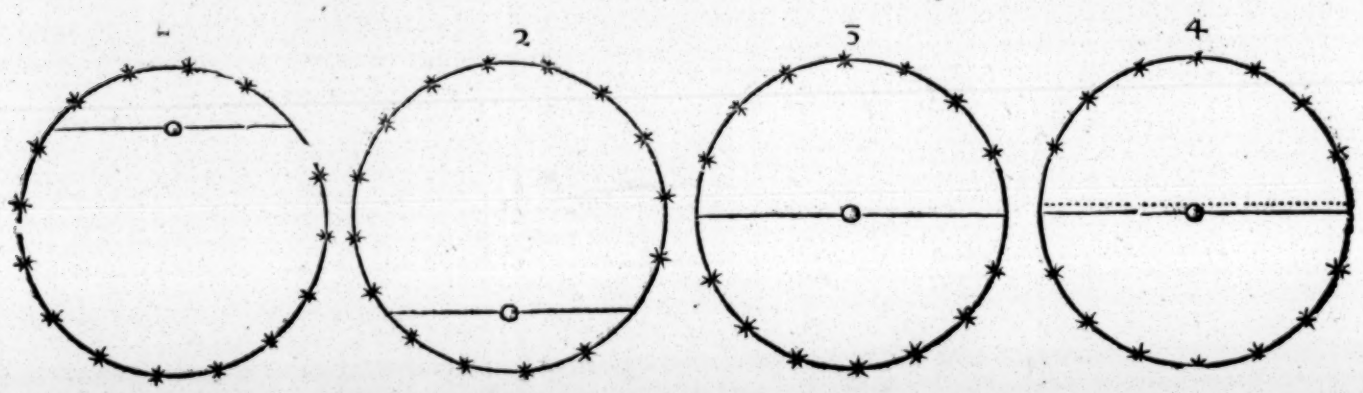
The second Point. Of the Round.

nesse of the Earth

THat the Earth with the Water together maketh a round Globe, appeareth not onely out of experience very clearely, but also out part of the Shaddow of Earth in the Eclips of the Moone. In what soever part of the Heaven the Moon is Eclipsed or touched by the Shaddow of the Earth, that Shaddow seemeth alwayes round. If the Earth were foure square, three cornerd, or of any other forme, then the Shaddow of the Moone should bee also foure square, thre cornerd or some other forme: Fr of what proportion any body is, such also must bee the Shaddow thereof. And seeing therefore that the Shaddow of the Earth is alwayes and on all sides round, the Earth it selfe must alsoo bee necessailly round.

That the Heaven is round wee marke from the Eye, but is most clearely perceived from the Circular motions of the heaven ly lights, as of the Sunne, Moone and Starres.

The third Point that the Earth is in the middle of the VVorld.



THat the Earth standeth in the middle of the World, may clearely bee understood by what is hereafter spoken: for if so bee that the Globe of the Earth stood not in the middle of the World, but that the heaven was nearer it on one side, it would come to passe, that the starres in their daily courses should bee nearer on one side of the Earth then on the other, and by that meanes should appeare to our sight to bee greater on one side of the Earth then on the other: likewise if that part of the heaven next to the Earth were above us, wee should then see lesse then halfe of the heavē according to instruicton of the first figure: & on the contrary whe that part of the heaven farthest from us were above us, wee should then see more then halfe of the Heaven according to the Instruction of the second Figure. But standing upon the flatt side of the Globe wee see the Starres as wel on the one side as on the other (in whatsoever part of the Heaven that it is) alwayes of one greateneſse, and it is found by experience, that wee alwayes see the one half of the Heaven, and the other halfe is hidden from our Eyes, from thence it appeares plainly according to the expression in the third Figure. That the Earth stands in the middle of the World: From thence is likewise to bee marked that the Globe of the Earth is no more to bee likened by the Heavens then a point without thickneſse, for if the Earth had any thickneſse in respect of Heaven, wee should (standing upon the Earth) by that reason not see halfe of the Heaven according to the Demonstration of the 4 Figure.

The fourt Point. Of the greateneſse of the Earth.

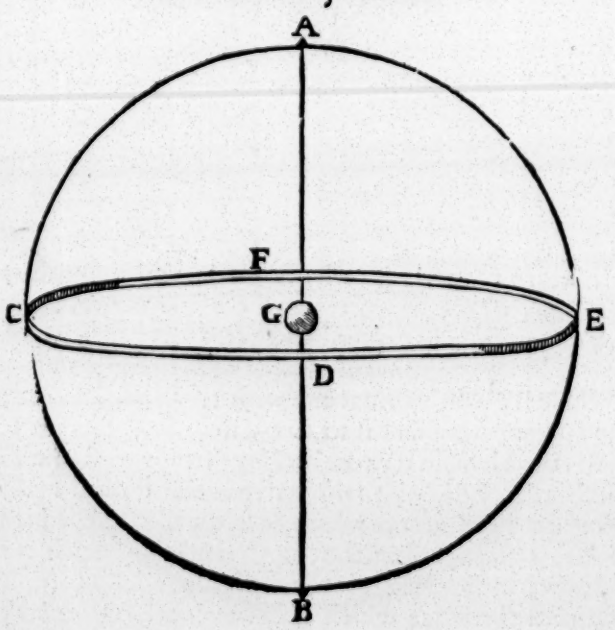
ALthough the Globe of the Earth (as is said) in respect of the extraordinary wideneſse of the Heaven is no more then a point, nevertheleſse in respect of its selfe it is a greate body-having in its Compaſſe 5400 dutch Miles. And that is knowne by this meanes. If you devide the whole Circle of the Compaſſe of the Earth into 360 parts or degrees, and wee find as well by Navigation as by measuring of Land that such a Degrees or part contraneth fiftheene such Dutch Miles, 360 such part beeing multiplyed by fiftheene make out 5400 Dutch Miles.

The fift Point. Of the Axis and

Poles or Axepoints of the World.

IN the Globe of the World is imagined to bee a Line, going from one point on the side of the Spheare (as a Diameter through the Center) to another Point right against it on the other side. That Line is calleſt the Axis and the outermoſt-ends there of, or the foresayd points, the Poles or Axepoints of the World, the one towards the North, and is called the Northerne Pole, and the other towards the South, called the Southerne Pole. Upon which Poles it is imagined, that the Sheare is upon its Axeltree daily turned.

The Demonſtration.



The

THe line A G B in this Figure going from the Point A through the Center G as a Diameter to the point B right againſt it ſheweth the Axel of the World and the Points A and B the Poles. A to the North te Northerne and B to the South the Southerne Poles.

The Sixth Point. Of the Æquinoctiall Line.

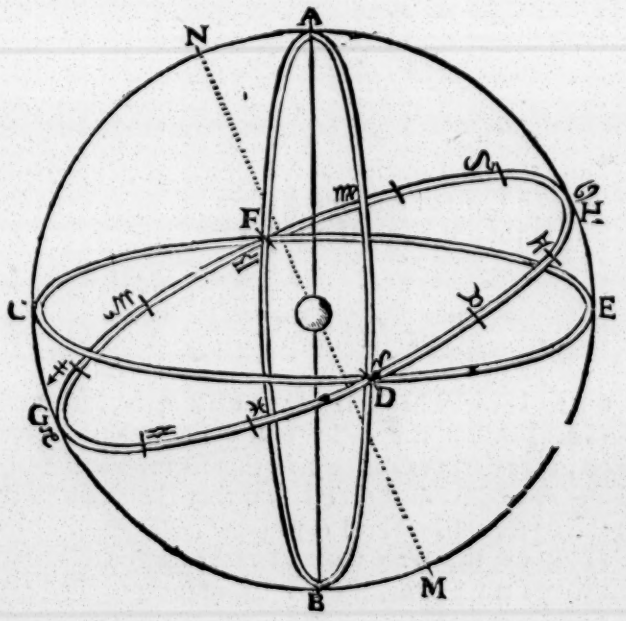
IN the middeſt of the Heavens every where equally deſtant from both the Poles, is imagined a greate Circle, dividing the whole Spheare into two equall parts which is called the Æquinoſtiall, becauſe when the Sonne commeth to or under that Circle which commeth to paſſe the 21 of March, and the 23 of September, the day and night are in all places of the Earth of an equall length. The knowledge of this Circle is proffitable above all things in Navigation, to know thereby houw farr wee goe either to the Northwards or Southwards upon Eath; thereby alſo is reckoned the time and hower of the day, the Declination of the Son and Starrs, and more other proffitable things.

Demonſtration.

IN the foregoing Figure A and B the Poles of the world C D E F is the Equinoctial Line in the middeſt of the Heaven equally diſtant from both the Poles A and B dividing the whole Spheare A C B E into two equall parts as C A E the Norţherne and C B E the Southerne part from hence is to be noted: Seeing that the whole Compaſſe of the Heavens is divided into 360 degrees that the Poles ſtand from one another 180 degrees and betweene the Poles and the Æquinoctiall remaineth every where on both ſides 90 degrees. This Line is marked in the Seacards with a red Line from eaſt to weſt trough the beginning of the degrees according as they are reckoned as well towards the North as to the South.

The Seaventh Point. Of the Ecliptique Line.

THe Ecliptique Line lyeth away over the Equinoctiall deviding it in two points right over againſt one another in two equall parts, and is alſo devided by it in two equall parts, the one lyeth betweene the Equinoctiall, and the North-Pole, the other betweene the Equinoctiall and the South-Pole. Its greateſt Declination on both ſides of the Equinoctial towards both the Poles is 23 degrees 31 ½ minutes and is devided into twelve equall parts, and to each of them a ſeverall ſigne applyed. The Sonn goeth alongſt this Circle without ever going out of it & runneth through it with its owne naturall courſe every yeare once, and even as the Poles of the World ſtand every where alike diſtant from the Equinoctiall even ſo hath the Ecliptique alſo its two Poles every where alike diſtant from the ſame.



Demonſtration.

IN this Figure as before is ſayd A B are the Poles of the World C D E F the Equinoctiall G D H F the Ecliptique Line cutting and dividing the Equinoctiall, and its ſelfe alſo into two equall parts, in the Point D and F which wee call the Equinoctiall, the one at D the Spring Equinoctiall, the other at F the Autumne Equinoctiall. The one halfe D H F the northern part lyeth betweene the Equinoctiall D E F and A the North-Pole at moſt declined towards F H 23 degrees and 31½ minutes: The other halfe F G D the Southern part lyeth betweene the Equinoctiall F C D and the South-Pole B likewiſe at moſt declined as C G 23 degrees 31½ minutes. The North-Part is devided into ſix ſignes, which wee call the Northerly beginning at D with the Kimbug ſignes towards the north. *Aries*, *Taurus*, *Gemini*, unto H the point of the fartheſt declination. From thence with the deſcending ſignes of the North, *Cancer*, *Leo*, *Virgo*, to the Equinoctiall Line in F the Autumne Equinoctiall the ſouthern-part is alſoo divided into ſix ſignes which wee call the Southerly beginning at F with the diſcending ſignes towards the South *Libra*, *Virgo*, *Sagittarius* untill G the Point of the fartheſt Declination towards the ſouth from thence further with klimbing ſignes towards the North *Capricornus*, *Aquarius*, *Piſces* as farr, as till you come to the Equinoctiall line in the Spring Equinoctiall D. The Sonn runneth through the three firſt Northerly ſignes from the 21 of March new ſtyle to the 21 of June new ſtyl the other from the of 21 June to the 23 of September. The firſt 3 Southerly ſignes from the 23 of September to the 23 of December and the other from the 23 December till the 21. of March agine. The Poles of the Ecliptique are M and N both of them ſtandingh every where alike diſtant from the Ecliptique G H and ſo farre from the Poles of the World A and B as the Ecliptique is fartheſt declining from the Equinoctiall at H E and C G.

The eight Point. Of the Coluri.

THe Coluri are two Circles, going croſswaye through both the Poles of the World, dividing each other into two parts in the Poles, & together with them the whole Globe Equinoctiall Zodiac or Ecliptique and all the Paralels in 4 equal parts, the one going through the Points of the Equinoctialls is called the Colurus of the Equinoctialls, the other through the points of the Solſtices the Colurus of the Solſtices. The Sonne moving theſe Circles (through its yearely courſe in the Zodiack; devideth the yeare into foure parts) as the Spring, Summer, Autum and Winter.

Demonſtration.

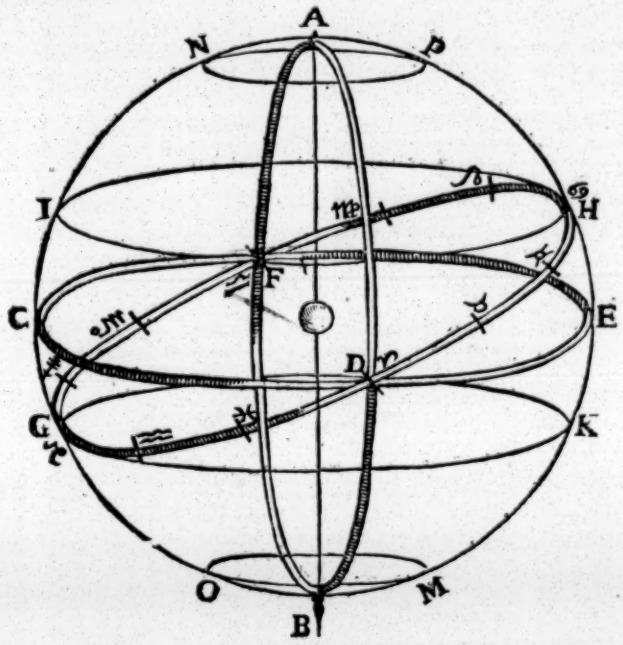
IN the forogoing Figure A F B D is the Colurus of the Equinoctialls, gong trough D and F the points of the Equinoctiall in the beginnings of *Aries* & *Libra*, & throug the Poles A & B A C G B. M E H the Colurus of the Solſtices in the beginnings of *Cancer* & *Capricornus* where the Ecliptique is fartheſt diſtant from the Equinoctial line through the Poles of the World A and B and through the Poles of the Zodiack M and N cutting one another through croſſewayes with right corners in the Poles A and B & deviding the Sodiaque or Ecliptique in 4 parts, as D H. H F. F G. and G D the firſt of which the Sonne wanders through in the Spring, the ſecond in the Summer the third in the Autume, and the fourth in the Winter.

Theſe foreſayd Circles of the Spheare are all greate Circles that is compaſſing the Spheare at the wideſt deviding the ſame into two equall parts; there follow now 4 ſmal circles which devide the Spheare into unequall parts.

The ninth Point. Concerning the Tropickes and the Artique and Antartique Circles.

The Tropiques are two Circles, the one northwards and the other southwards from the Equinoctiall, and alike wide with the same which through turning about of the Spheare from the points of the Ecliptique are fartheſt diſtant from the Equinoctiall, and are placed the one to the North and is called the Tropique of Cancer, and the other to the South and is called the Tropique of Capricornus.

Circulus Articus the Northerne Circle and Circulus Antarticus the Southerne Circkle are reckoned through the running about off the Spheare from the Poles off the Ecliptique.

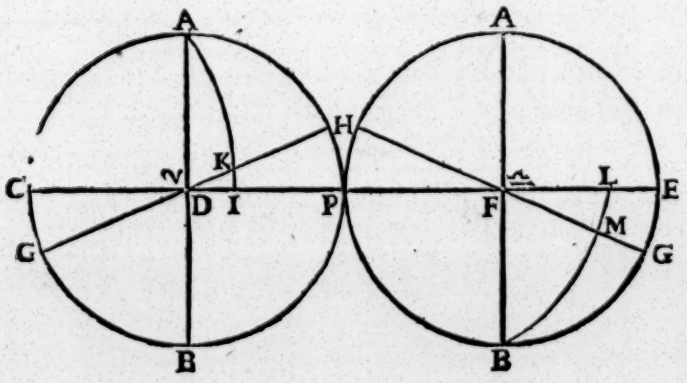


Demonſtration.

IN this Figure H I is the Tropicke of Cancer which through the turning about of the Spheare is written from the point H, the beginnigh of Cancer is alſo called becauſe that the Sonne comming to that point, fartheſt from the Equinoctiall towards the North, turneth then againe through the Crabfiſh, towards the Equinoctiall G K is the Tropique of *Capricornus*, ſo cauſed through the running about of the Spheare from the point G the beginning of Capricornus or the Goate, and is ſo called becauſe the Sunne comming to that point in the fartheſt from the Equinoctiall towards the South, then turneth againe through the Goate towards the Equinoctiall, N P is the Artique Circle and M O the Antartique Circle they are ſo called through the running about of the Spheare from the Poles of the Zodiaque N and M. Theſe are equally diſtant from the Poles of the World A and B as the Tropique are from the Equinoctiall Line, to witt 23 degrees and 31½ minutes.

The tenth Point. Of the Suns Declination.

THe Suns Declination is its diſtance from the Equinoctiall Line, and that is two fould towards the North and South.



Demonſtration.

THe Suns Declination is cauſed through his courſe alongſt the Ecliptique Linne thus. Let A bee the Northerne & B the Southerne Pole of the World C P E the Equinoctial G H G the Ecliptique Line. The Sunne comming in the beginning of Aries on the 21 of March to D commeth alſo in the Equinoctiall Line, hath beſides no Declination neither Northwards nor Southwards, but going forwards alongſt the Ecliptique from D to H and comming to K in the beginning of Taurus, it ſhall bee diſtant & declined from the Equinoctiall Line towards the North from I to K 11 degrees and 30 minutes. Going forwards to H is then at moſt declined from P to H 23 degree 31½ minutes. From thence following its courſe from H to F commeth in the beginning of Libra againe to the Line without declination. Going forwards from F towards G untill M in the beginning of Sagitarius, it ſhall bee diſtant or declined from the Line F E towards the South from L to M 20 degrees 13 minutes. Comming to G it is then at its fartheſt declination from E to G towards the South, from thence it runneth againe to D to the Equinoctiall Line perfecting its courſe in a yeare.

The Eleaventh Point. How to finde the Sunnes Deklination upon every day in the yeare.

THe yeare of the Sunne (that is the time wherein the Sunne goeth out of a certaine point in the Ecliptique, & turneth againe into the ſame) and is not juſt 365 dayes, but about 5 houres and 49 minutes (that is little leſſe then 6 howers more, wherefore it is that wee alwayes adde after three yeares to the South 4 times 6 howers that is a day to the Month February thereby to count the yeare or Revolation of the Sunne into equall dayes, therefore every ſuch fourth yeare is called the *Leap-yeare*. If therefore you will then ſett the Sunnes Declination by day tables it is needfull to make foure ſundry tables of foure ſuch following yeares. The foreſayd difference of foure Revolutions of the Sunne come not equally alike with ſuch foure yeares, being with legth of time ſo much difference in the Declination that it is needfull to renew ſuch tables every twenty yeares.

Now to find the Declination of the Sunne out of ſuch Tables upon every day of the yeare, it is needful to know two things, the firſt in what yeare you are, either the Leap-yeare, or in the firſt ſecond or third yeare after. The ſecond, when you know the yeare which of the Tables you muſt uſe hereto.

For the firſt, devide the yeare of our Lord 1600 by 4, if the deviſion commeth even out without remainders, ſuch a yeare is then a Leape-yeare of 365 dayes, but if out of the diviſion any number remayneth, ſuch remainders ſhew you how much that ſuch a propoſed yeare is after the Leape-yeare.

The firſt Example.

I deſire to know what for a yeare 1664 is leaving the 1600, take and devide the remaining 44 by 4, that commeth even out without remainders for 11 times 4 is 44 and from thence I find that the yeare 1644 to bee a Leape-yeare.

The ſecond Example.

FOr to know what ſort of yeare 1663 is, leaving the 1600 I divide the 63 by 4 & I finde that there reſt three, for 15, times 4 is 60, take that from 63 and there remaine 3, and from thence I find that the yeare of 63 is the third yeare after the Leape yeare.

To know the ſame without reckoning, conſider this following little Table, the firſt Columne is of the Leape-yeares

yeares the ſecond, third, and fourth Columne are three yeares after the Leape yeares.

Leape yeare.	1 *yeare.*	2 *yeare.*	3 *yeare.*
1676	1673	1674	1675
1680	1677	1678	1679
1684	1681	1682	1683
1688	1685	1686	1687
1692	1689	1690	1691

The ſecond for to know which Table you muſt uſe to every yeare that ſtandeth demonſtrated above each of the following Tables.

The firſt Example.

IN the ſecond yeare following the Leape yeare upon the 20 of May, I deſire to know the Sonnes Declination: I ſeeke in the Tables the Month of May, in the ſecond yeare and there under in the firſt Collumne of the Figures the twentieth day; I find in the ſecond Collumne 20,8. That is 20 degrees and 8 minutes, to bee the Sonnes Declination. And ſeeing that it is betweene the 20 of March, and the 23 of September (that the Sonne is by northwards of the Line) ſo comes it to paſſe that the Declination is Northerly.

The ſecond Example.

UPon the 12 of February in the Leape yeare, I deſire to know the Sonnes Declination, ſeecke therefore in the Table of Leape yeares the Month of February, and count in the firſt Collumne to the 12 day, and you find there by it 13 degrees and 42 minutes for the Declination of the Sunne on that day; ſeeing that it is betweene the 23 of September and 20 of March, that the Sunne goeth by ſouth the Line. The Declination is then Southerly.

Now follow the Tables of the Sunnes Declination reckoned properly, upon the length of the earth or Meridian of Englands Lands-End, becauſe that this length is uſed moſt by our Netherland ſeamen as well in running, upon the Channell of the Sea, as alongſt the Coaſts of France, Portugal and Spaine.

NOTA

LOok how many degrees and minutes the Line is raiſed above the Horizon, juſt ſo many degrees and minutes are there between the point rigt over your head, called the Zenith and the Pole, and thence it followeth, that as many degrees and minutes as there be betweene the Zenith and the Line; juſt as many are there from the Horizon to the Pole; that is to ſay, ſo many degrees is the Pole elevated, therefore wen we ſay we are in ſuch a height, we underſtand that we are ſo many degrees on the north or ſouthſide of the Line. This rule and inſtruction is univerſall and common through out the whole World both in the nord and ſouthſide of the Line.

And Admonition to the Reader.

IF a man would obſerve the height of the Sun, it is neceſſary that he know how many foot hee ſtands above the water, for the higher a man ſtand the farther hee is from the Horizon, becauſe that from the eye to the Horizon is 60 degrees, if wee ſtand waterpas, as they call it, but if he ſtand higher then the water as is ſayd, it will be more then 60 degrees to the Horizon; And to mend this fault, I have here placed a table, thereby to know whether wee ſtand higher then the water or no, and how many minutes difference it makes, and alſo houw much neerer the eye the croſſe ſtandeth, then adding the minut. to that which the croſſe ſtandeth below the Zenith, ſo ſhall you mend the fault, that is to ſay, thay you ſee the croſſe ſo many minutes downward; look on the table following.

Example.

In this height above the earth.

feet.	minute
2	1
4	2
8	3
14	4
20	5
27	6
39	7
53	8
67	9
82	10
100	11
118	12
140	13
164	13
180	15

LEt your eye be above the water, ſuppoſe 27 feet, that the croſſe may ſtand 45 degrees from the Zenith (that is, beginning to tell from that end where the eye is) theſe 27 feet, being ſoutght in the firſt rancke, or Culumne of the Table, and you ſhall find over againſt it 6 minutes, ſo much is the Horizon below, that which they call the waterpas or the ſurſaſe of the water, and ſo many feet muſt the croſſe be thruſt downward, ſo will it fall out 45 degrees; ſix minutes, where the croſſe ought to be.

Of the vapours and exhalations which the Sunne, Moon and Stars, as they are nearer the Horizon do ſeem to draw up more, as indeed and truth they are.

EXperience teacheth, that the lights of heaven, by houw much they are nearer the Horizon, by ſo much doe they ſeeme to be higher then indeed they are; and by reaſon of the fumes and damps, which continually ariſe & as they are nearer the Horizon, ſo much are they more thick, and riſing by little and little, they leſſen, and at the leaſt are cleane vaniſhed, and as wee come nearer the Pole, the vapours do more and more increaſe, and for that cauſe doe the lights ſeeme to be higher then they are. Yea it is found about the height of 83 degrees towards the north, that the Sunne ſeemeth to be 40 minutes higher ten in truth it is, this hath that famous Aſtronomer Tycho Brahe ſearched our and written in Denmark, as you may ſee in this table.

A Table of the riſingh of the Sunne.

	Degrees.	Minutes.	
When the Sunne is found to be high.	0	34	higher then indeed it is.
	1	26	
	2	20	
	3	15	
	4	13	
	7 it ſemees	10	
	10	7	
	15	3	
	23	1	
	32		

A Table of the riſing of the Starres.

	Degrees.	Minutes.	
When the Stars are of the hight.	0	30	higher then indeed they are.
	1	22	
	2	15	
	4 they ſeeme	11	
	7	8	
	11	5	
	15	3	

The uſe of this table will we declare by an example and whatſoever is ſayd of the riſing of the Sunne, the ſame may bee ſayd of thee Starres.

Example.

LEt the height of the Sun be meaſured, and ſound to bee 7 degrees above the Horizon, and in the table of the Sunne above written, there are 13 minutes which the Sun ſeemeth to bee higher then it is, therefore ſubſtract 13 minutes from the 7 degrees, there will remaine 6 degrees 47 minutes for the true height of the Sun.

But if we take the diſtance of the Sun from the Zenith according to this example, it would be ſound to be 83 degrees; and then 13 min. added to the 83 degrees, the product is 83 degr. 13 min. for the true diſtance of the Sun from the Zenith; then if we take 83 degr. 13 min. from 90 degrees there will remaine 6 degr. 47. min. as before, and ſo will it be in all the other.

A short Instruction,

THE

TABLES,

Of the Suns Declination after the New ſtile,

FOR THE LEAP-YEARE.

Januar.			Februar.			March.			April.			May.			June.			July.			Auguſt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	5	1	17	7	1	7	11	1	4	57	1	15	25	1	22	15	1	23	9	1	17	54	1	8	1	1	3	32	1	14	48	1	22	3
2	23	0	2	16	50	2	6	48	2	5	20	2	15	43	2	22	23	2	23	4	2	17	39	2	7	39	2	3	55	2	15	7	2	22	12
3	22	54	3	16	32	3	6	25	3	5	43	3	16	0	3	22	30	3	22	59	3	17	23	3	7	17	3	4	18	3	15	26	3	22	20
4	22	48	4	16	14	4	6	2	4	6	6	4	16	17	4	22	37	4	22	54	4	17	7	4	6	55	4	4	42	4	15	45	4	22	28
5	22	41	5	15	56	5	5	39	5	6	29	5	16	34	5	22	44	5	22	48	5	16	51	5	6	33	5	5	5	5	16	3	5	22	35
6	22	34	6	15	38	6	5	15	6	6	52	6	16	51	6	22	50	6	22	42	6	16	34	6	6	19	6	5	28	6	16	21	6	22	42
7	22	26	7	15	19	7	4	52	7	7	14	7	17	8	7	22	56	7	22	36	7	16	17	7	5	48	7	5	51	7	16	39	7	22	49
8	22	18	8	15	0	8	4	28	8	7	36	8	17	24	8	23	1	8	22	29	8	16	0	8	5	25	8	6	14	8	16	56	8	22	55
9	22	10	9	14	41	9	4	5	9	7	59	9	17	40	9	23	6	9	22	22	9	15	43	9	5	2	9	6	37	9	17	13	9	23	1
10	22	1	10	14	21	10	3	41	10	8	21	10	17	55	10	23	10	10	22	14	10	15	25	10	4	39	10	7	0	10	17	30	10	23	6
11	21	52	11	14	2	11	3	18	11	8	43	11	18	11	11	23	14	11	22	6	11	15	7	11	4	16	11	7	23	11	17	46	11	23	11
12	21	42	12	13	47	12	2	54	12	9	5	12	18	26	12	23	18	12	21	57	12	14	49	12	3	53	12	7	46	12	18	2	12	23	15
13	21	32	13	13	22	13	2	30	13	9	27	13	18	40	13	23	21	13	21	48	13	14	30	13	3	30	13	8	9	13	18	18	13	23	19
14	21	21	14	13	1	14	2	7	14	9	48	14	18	55	14	23	24	14	21	39	14	14	11	14	3	7	14	8	31	14	18	33	14	23	22
15	21	10	15	12	40	15	1	43	15	10	9	15	19	9	15	23	26	15	21	29	15	13	52	15	2	44	15	8	53	15	18	48	15	23	25
16	20	59	16	12	19	16	1	20	16	10	30	16	19	23	16	23	28	16	21	19	16	13	33	16	2	21	16	9	15	16	19	3	16	23	27
17	20	47	17	11	58	17	0	56	17	10	51	17	19	36	17	23	30	17	21	9	17	13	14	17	1	58	17	9	37	17	19	18	17	23	29
18	20	35	18	11	♓ 37	18	0	32	18	11	♉ 12	18	19	49	18	23	31	18	20	59	18	12	55	18	1	34	18	9	59	18	19	31	18	23	30
19	20	♒ 23	19	11	16	19	0	♈ 8	19	11	33	19	20	♊ 2	19	23	32	19	20	41	19	12	35	19	1	11	19	10	21	19	19	46	19	23	31
20	20	10	20	10	55	20	0	N 15	20	11	54	20	20	14	20	23	32	20	20	36	20	12	15	20	0	47	20	10	43	20	20	0	20	23	32
21	19	56	21	10	33	21	0	30	21	12	14	21	20	26	21	♋ 32		21	20	24	21	11	55	21	0	24	21	11	4	21	20	13	21	♍ 32	
22	19	43	22	10	11	22	1	3	22	12	34	22	20	38	22	23	31	22	20	♌ 12	22	11	♏ 34	22	0	S 0	22	11	25	22	20	♎ 26	22	23	32
23	19	29	23	9	49	23	1	27	23	12	54	23	20	49	23	23	31	23	20	0	23	11	14	23	♎	22	23	11	♏ 46	23	20	38	23	23	31
24	19	14	24	9	27	24	1	50	24	13	14	24	21	0	24	23	30	24	19	47	24	10	53	24	0	47	24	12	7	24	20	50	24	23	29
25	18	59	25	9	4	25	2	14	25	13	34	25	21	10	25	23	29	25	19	34	25	10	32	25	1	11	25	12	28	25	21	2	25	23	27
26	18	44	26	8	42	26	2	38	26	13	53	26	21	21	26	23	27	26	19	21	26	10	11	26	1	34	26	12	49	26	21	13	26	23	25
27	18	29	27	8	10	27	3	1	27	14	12	27	21	31	27	23	24	27	19	7	27	9	50	27	1	58	27	13	10	27	21	24	27	23	22
28	18	13	28	7	57	28	3	25	28	14	31	28	21	41	28	23	21	28	18	53	28	9	29	28	2	21	28	13	30	28	21	34	28	23	19
29	17	57	29	7	34	29	3	48	29	14	49	29	21	50	29	23	17	29	18	39	29	9	7	29	2	45	29	13	50	29	21	44	29	23	15
30	17	41				30	4	11	30	15	7	30	21	59	30	23	13	30	18	24	30	8	45	30	3	8	30	14	10	30	21	54	30	23	11
31	17	24				31	4	34				31	22	7				31	18	9	31	8	23				31	14	29				31	23	6

The first after the LEAP-YEARE.

Januar.			Februar.			March.			April.			May.			June.			July.			Auguſt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	0	1	16	52	1	7	14	1	4	55	1	15	23	1	22	14	1	23	9	1	17	56	1	8	5	1	3	29	1	14	45	1	22	2
2	22	54	2	16	34	2	6	51	2	5	18	2	15	41	2	22	22	2	23	4	2	17	41	2	7	43	2	3	52	2	15	4	2	22	11
3	22	48	3	16	16	3	6	28	3	5	41	3	15	58	3	22	29	3	22	59	3	17	25	3	7	21	3	4	16	3	15	23	3	22	19
4	22	41	4	15	58	4	6	5	4	6	4	4	16	15	4	22	36	4	22	54	4	17	9	4	6	58	4	4	39	4	15	41	4	22	27
5	22	34	5	15	40	5	5	41	5	6	26	5	16	32	5	22	42	5	22	49	5	16	52	5	6	35	5	5	2	5	15	59	5	22	34
6	22	27	6	15	21	6	5	18	6	6	49	6	16	48	6	22	48	6	22	43	6	16	36	6	6	12	6	5	25	6	16	17	6	22	41
7	22	19	7	15	2	7	4	54	7	7	11	7	17	5	7	22	54	7	22	37	7	16	19	7	5	50	7	5	48	7	16	35	7	22	48
8	22	11	8	14	44	8	4	31	8	7	33	8	17	21	8	22	59	8	22	30	8	16	2	8	5	27	8	6	11	8	16	53	8	22	54
9	22	2	9	14	24	9	4	7	9	7	56	9	17	37	9	23	4	9	22	23	9	15	45	9	5	4	9	6	34	9	17	10	9	23	0
10	21	53	10	14	4	10	3	44	10	8	18	10	17	53	10	23	9	10	22	15	10	15	27	10	4	42	10	6	57	10	17	27	10	23	5
11	21	43	11	13	44	11	3	20	11	8	40	11	18	8	11	23	12	11	22	7	11	15	9	11	4	19	11	7	20	11	17	44	11	23	10
12	21	33	12	13	24	12	2	57	12	9	2	12	18	23	12	23	17	12	21	58	12	14	51	12	3	56	12	7	42	12	18	0	12	23	14
13	21	22	13	13	3	13	2	33	13	9	23	13	18	38	13	23	20	13	21	49	13	14	33	13	3	32	13	8	5	13	18	16	13	23	18
14	21	11	14	12	43	14	2	9	14	9	45	14	18	54	14	23	23	14	21	40	14	14	14	14	3	9	14	8	27	14	18	32	14	23	21
15	21	0	15	12	22	15	1	45	15	10	6	15	19	7	15	23	26	15	21	31	15	13	55	15	2	46	15	8	50	15	18	46	15	23	24
16	20	58	16	12	1	16	1	22	16	10	27	16	19	21	16	23	28	16	21	21	16	13	36	16	2	23	16	9	12	16	19	1	16	23	27
17	20	36	17	11	40	17	0	58	17	10	48	17	19	35	17	23	29	17	21	11	17	13	17	17	2	59	17	9	34	17	19	16	17	23	29
18	20	24	18	11	♓ 19	18	0	35	18	11	9	18	19	48	18	23	30	18	21	0	18	12	57	18	1	36	18	9	56	18	19	30	18	23	30
19	20	♒ 11	19	10	57	19	0	♈ 11	19	11	♉ 30	19	20	1	19	23	31	19	20	49	19	12	37	19	1	13	19	10	18	19	19	44	19	23	31
20	19	58	20	10	36	20	0	N 13	20	11	51	20	20	13	20	23	32	20	20	38	20	12	17	20	0	49	20	10	40	20	19	58	20	23	32
21	19	44	21	10	14	21	0	37	21	12	11	21	♊ 25		21	♋ 32		21	20	♌ 26	21	11	57	21	0	26	21	11	1	21	20	♎ 11	21	23	♍ 32
22	19	30	22	9	52	22	1	51	22	12	31	22	20	37	22	23	32	22	20	14	22	11	37	22	0	♎ 2	22	11	♏ 23	22	20	24	22	23	32
23	19	16	23	9	30	23	1	24	23	12	15	23	20	48	23	23	31	23	20	2	23	11	♏ 17	23	0	21	23	11	44	23	20	36	23	23	31
24	19	1	24	9	8	24	1	48	24	13	11	24	20	59	24	23	30	24	19	49	24	10	56	24	0	45	24	12	5	24	20	48	24	23	30
25	18	46	25	8	45	25	2	13	25	13	30	25	21	9	25	23	29	25	19	36	25	10	35	25	1	8	25	12	26	25	21	0	25	23	28
26	18	31	26	8	23	26	2	35	26	13	50	26	21	19	26	23	27	26	19	25	26	10	14	26	1	32	26	12	46	26	21	11	26	23	26
27	18	15	27	8	0	27	2	59	27	14	9	27	21	29	27	23	24	27	19	9	27	9	53	27	1	55	27	13	7	27	21	22	27	23	23
28	17	59	28	7	37	28	3	22	28	14	28	28	21	38	28	23	21	28	18	55	28	9	32	28	2	19	28	13	27	28	21	33	28	23	20
29	17	43				29	3	46	29	14	46	29	21	48	29	23	18	29	18	41	29	9	11	29	2	42	29	13	47	29	21	43	29	23	16
30	17	26				30	4	9	30	15	5	30	21	57	30	23	14	30	18	26	30	8	49	30	3	6	30	14	7	30	21	53	30	23	12
31	17	9				31	4	32	31			31	22	5				31	18	11	31	8	27				31	14	26				31	23	7

TA-

In the Art of Navigation.

THE TABLES, Of the Suns Declination after the New ſtile,

The ſecond Yeare after the LEAP-YEARE.

da.	Januar. de.	mi.	da.	Februar. de.	mi.	da.	March. de.	mi.	da.	April. de.	mi.	da.	May. de.	mi.	da.	June. de.	mi.	da.	July. de.	mi.	da.	Auguſt. de.	mi.	da.	Septemb. de.	mi.	da.	October. de.	mi.	da.	Novemb. de.	mi.	da.	Decemb. de.	mi.
1	23	2	1	16	56	1	7	20	1	4	49	1	15	18	1	22	12	1	23	10	1	18	0	1	8	10	1	3	23	1	14	41	1	22	0
2	22	56	2	16	39	2	6	57	2	5	13	2	15	36	2	22	19	2	23	6	2	17	45	2	7	48	2	3	47	2	15	0	2	22	9
3	22	50	3	16	21	3	6	34	3	5	36	3	15	54	3	22	26	3	22	1	3	17	29	3	7	26	3	4	10	3	15	18	3	22	17
4	22	44	4	16	3	4	6	11	4	5	59	4	16	11	4	22	33	4	22	56	4	17	13	4	7	4	4	4	33	4	15	36	4	22	25
5	22	37	5	15	44	5	5	48	5	6	21	5	16	28	5	22	40	5	22	50	5	16	56	5	6	42	5	5	56	5	15	55	5	22	33
6	22	30	6	15	26	6	5	24	6	6	44	6	16	54	6	22	47	6	22	44	6	16	39	6	6	19	6	5	19	6	16	13	6	22	40
7	22	22	7	15	7	7	5	1	7	7	6	7	17	1	7	22	53	7	22	38	7	16	22	7	5	56	7	5	42	7	16	31	7	22	47
8	22	13	8	14	48	8	4	38	8	7	29	8	17	17	8	22	58	8	22	31	8	16	5	8	5	33	8	6	5	8	16	49	8	22	58
9	22	4	9	14	29	9	4	14	9	7	51	9	17	33	9	23	3	9	22	24	9	15	48	9	5	11	9	6	28	9	17	6	9	23	59
10	21	55	10	14	9	10	3	50	10	8	13	10	17	49	10	23	8	10	22	17	10	15	31	10	4	48	10	6	51	10	17	24	10	23	4
11	21	45	11	13	49	11	3	26	11	8	35	11	18	5	11	23	♓	11	22	9	11	15	13	11	4	25	11	7	14	11	17	40	11	23	9
12	21	35	12	13	29	12	3	3	12	8	57	12	18	20	12	23	16	12	22	1	12	14	55	12	4	2	12	7	37	12	17	56	12	23	13
13	21	25	13	13	9	13	2	39	13	9	19	13	18	35	13	23	19	13	21	52	13	14	37	13	3	39	13	8	0	13	18	12	13	23	17
14	21	14	14	12	48	14	2	15	14	9	40	14	18	49	14	23	22	14	21	43	14	14	18	14	3	16	14	8	22	14	18	28	14	23	20
15	21	3	15	12	28	15	1	52	15	10	2	15	19	4	15	23	25	15	21	33	15	13	59	15	2	53	15	8	44	15	18	43	15	23	23
16	20	51	16	12	7	16	1	28	16	10	23	16	19	18	16	23	27	16	21	23	16	13	40	16	2	29	16	9	7	16	18	58	16	23	26
17	20	39	17	11	46	17	1	4	17	10	44	17	19	31	17	23	29	17	21	13	17	13	21	17	2	6	17	9	29	17	19	13	17	23	28
18	20	27	18	11	25	18	0	40	18	11	4	18	19	44	18	23	30	18	21	2	18	13	1	18	1	42	18	9	51	18	19	27	18	23	30
19	20	♒14	19	11	3	19	0	♈17	19	11	25	19	20	57	19	23	31	19	20	51	19	12	42	19	1	19	19	10	13	19	19	41	19	23	31
20	20	1	20	10	♓41	20	0	N 7	20	11	♉46	20	20	10	20	23	32	20	20	40	20	12	22	20	0	55	20	10	34	20	19	55	20	23	32
21	19	48	21	10	19	21	0	31	21	11	6	21	20	♊22	21	23	♋32	21	20	29	21	12	2	21	0	32	21	11	56	21	20	8	21	23	♍32
22	19	34	22	9	57	22	0	54	22	12	26	22	20	34	22	23	32	22	20	♌17	22	11	41	22	0	♎ 8	22	11	17	22	20	→21	22	23	32
23	19	20	23	9	35	23	1	18	23	12	46	23	20	46	23	23	31	23	20	5	23	♍21		23	0	S 15	23	♏38		23	20	34	23	23	31
24	19	5	24	9	13	24	1	42	24	13	6	24	20	57	24	23	30	24	19	52	24	11	1	24	0	39	24	12	59	24	20	46	24	23	29
25	18	50	25	8	51	25	2	5	25	13	26	25	21	8	25	23	29	25	19	39	25	10	40	25	1	2	25	12	20	25	20	57	25	23	28
26	18	35	26	8	28	26	2	29	26	13	45	26	21	18	26	23	27	26	19	26	26	10	19	26	1	26	26	12	41	26	21	9	26	23	26
27	18	19	27	8	5	27	2	52	27	14	4	27	21	28	27	23	25	27	19	13	27	9	58	27	1	49	27	13	1	27	21	20	27	23	23
28	18	3	28	7	43	28	3	16	28	14	23	28	21	37	28	23	22	28	18	59	28	9	37	28	2	13	28	13	21	28	21	31	28	23	20
29	17	47				29	3	39	29	14	42	29	21	46	29	23	19	29	18	45	29	9	16	29	2	36	29	13	41	29	21	41	29	23	17
30	17	30				30	4	2	30	15	0	30	21	55	30	23	15	30	18	30	30	8	54	30	3	0	30	14	1	30	21	51	30	23	13
31	17	13				31	4	26				31	22	4				31	18	15	31	8	32				31	14	21				31	23	8

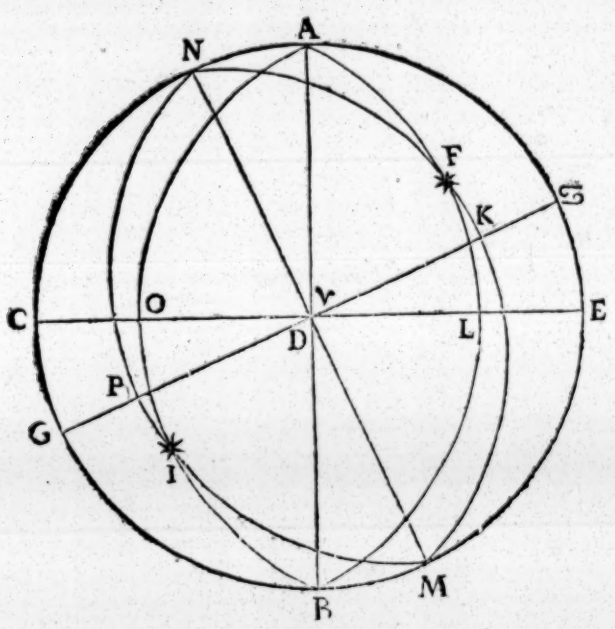
The third Yeare after the LEAP-YEARE.

da.	Januar. de.	mi.	da.	Februar. de.	mi.	da.	March. de.	mi.	da.	April. de.	mi.	da.	May. de.	mi.	da.	June. de.	mi.	da.	July. de.	mi.	da.	Auguſt. de.	mi.	da.	Septemb. de.	mi.	da.	October. de.	mi.	da.	Novemb. de.	mi.	da.	Decemb. de.	mi.
1	23	3	1	17	0	1	7	25	1	4	44	1	15	14	1	22	10	1	23	11	1	18	4	1	8	15	1	3	18	1	14	36	1	21	58
2	22	57	2	16	43	2	7	2	2	5	7	2	15	32	2	22	18	2	23	7	2	17	49	2	7	53	2	3	41	2	14	55	2	22	7
3	22	51	3	16	25	3	6	39	3	5	30	3	15	50	3	22	26	3	23	2	3	17	33	3	7	21	3	4	5	3	15	14	3	22	15
4	22	44	4	16	7	4	6	16	4	5	53	4	16	7	4	22	33	4	22	57	4	17	17	4	7	9	4	4	28	4	15	33	4	22	23
5	22	39	5	15	48	5	5	52	5	6	16	5	16	24	5	22	40	5	22	52	5	16	1	5	6	47	5	4	51	5	16	51	5	22	31
6	22	32	6	15	29	6	5	29	6	6	38	6	16	41	6	22	46	6	22	46	6	16	45	6	6	24	6	5	14	6	16	9	6	22	38
7	22	24	7	15	10	7	5	5	7	7	1	7	16	57	7	22	52	7	22	40	7	16	28	7	6	2	7	5	37	7	16	27	7	22	45
8	22	16	8	14	51	8	4	42	8	7	24	8	17	13	8	22	58	8	22	33	8	16	11	8	5	39	8	6	0	8	16	45	8	22	51
9	22	7	9	14	32	9	4	18	9	7	46	9	17	29	9	23	2	9	22	26	9	15	54	9	5	16	9	6	23	9	17	2	9	22	57
10	21	58	10	14	13	10	3	55	10	8	8	10	17	45	10	23	7	10	22	19	10	15	36	10	4	53	10	6	46	10	17	19	10	23	3
11	21	48	11	13	33	11	3	32	11	8	30	11	18	1	11	23	11	11	22	11	11	15	18	11	4	30	11	7	9	11	17	36	11	23	8
12	21	38	12	13	33	12	3	8	12	8	52	12	18	16	12	23	15	12	22	3	12	15	0	12	4	0	12	7	31	12	17	52	12	23	12
13	21	27	13	13	13	13	2	44	13	9	13	13	18	31	13	23	19	13	21	54	13	14	41	13	3	44	13	7	54	13	18	8	13	23	15
14	21	16	14	12	53	14	2	20	14	9	34	14	18	46	14	23	22	14	21	45	14	14	23	14	3	21	14	8	16	14	18	24	14	23	18
15	21	5	15	12	32	15	1	56	15	9	56	15	19	0	15	23	25	15	21	35	15	14	4	15	2	58	15	8	39	15	18	39	15	23	21
16	20	54	16	12	11	16	1	33	16	10	17	16	19	14	16	23	27	16	21	25	16	13	45	16	2	36	16	9	2	16	18	54	16	23	24
17	20	42	17	11	50	17	1	9	17	10	38	17	19	28	17	23	29	17	21	15	17	13	26	17	2	11	17	9	24	17	19	9	17	23	27
18	20	30	18	11	29	18	0	45	18	10	59	18	19	41	18	23	30	18	21	5	18	13	6	18	1	48	18	9	46	18	19	24	18	23	29
19	20	♒17	19	11	♓ 8	19	0	♈ 2	19	11	♉20	19	19	54	19	23	31	19	20	54	19	12	47	19	1	24	19	10	7	19	19	38	19	23	31
20	20	4	20	10	46	20	0	N 2	20	11	41	20	20	♊ 7	20	23	32	20	20	43	20	12	27	20	1	1	20	10	29	20	19	52	20	23	32
21	19	51	21	10	24	21	0	25	21	12	1	21	20	19	21	23	♋32	21	20	32	21	12	7	21	0	37	21	10	51	21	20	5	21	23	♍32
22	19	37	22	10	2	22	0	49	22	12	21	22	20	31	22	23	32	22	20	♌20	22	11	♍47	22	0	♎14	22	11	32	22	20	→18	22	23	32
23	19	23	23	9	40	23	1	13	23	12	41	23	20	43	23	23	31	23	20	8	23	11	27	23	0	S 10	23	♏34		23	20	31	23	23	31
24	19	8	24	9	18	24	1	37	24	13	1	24	20	54	24	23	30	24	19	55	24	11	6	24	0	33	24	11	55	24	20	43	24	23	30
25	18	53	25	8	45	25	2	0	25	13	21	25	21	5	25	23	29	25	19	42	25	10	45	25	0	57	25	12	16	25	21	55	25	23	29
26	18	38	26	8	33	26	2	14	26	13	40	26	21	15	26	23	27	26	19	29	26	10	24	26	1	20	26	12	37	26	21	7	26	23	27
27	18	22	27	8	11	27	2	48	27	13		27	21	25	27	23	25	27	19	16	27	10	3	27	1	44	27	12	57	27	21	18	27	23	28
28	18	6	28	7	48	28	3	11	28	14	28	28	21	35	28	23	22	28	18	2	28	9	42	28	2	7	28	13	17	28	21	29	28	23	21
29	17	50				29	3	34	29	14	46	29	21	44	29	23	19	29	18	48	29	9	21	29	2	31	29	13	38	29	21	39	29	23	18
30	17	34				30	3	58	30	14	50	30	21	53	30	23	15	30	18	34	30	8	59	30	2	54	30	13	58	30	21	49	30	23	14
31	17	17				31	4		31			31	22	5				31	18	19	31	8	37				31	14	17				31	23	9

The

The 12. Chapter, Of the length and the breadth of the fixed Starres.

THe Starres of the eight heaven are called Fixed Starres, becauſe (unlike the Plannets without motion) they ſtand alwayes faſt and fixed in one faſhion and diſtance one from the other, and are carryed a bout altogether one with the other by the *Primum Mobile*: they are marked according to length and breadth. Their length is a part of the Ecliptique, contained betweene two halfe circles, going both out of the Poles of the Ecliptique, the one through the ſpring Equinoctiall, or the beginning of Aries, the other through the Starres themſelves. Their breadth is a Bow of the like halfe Circle betweene the Ecliptique Line and the Starres: That is two fold Northerly & Southerly, the Northerly which are Northwards from the Ecliptique, and the Southerly which ſtand Southward from them.



Demonſtration.

LEt the Ecliptique Line bee G D H. Let N bee the Northerne, and M the Southerne Pole thereof: F a certaine Starre. Let two halfe Circles bee drawne out of the foreſayd Poles, the one N D M through the ſpring Equinoctiall to D. The other through the Starre F deviding the Ecliptique in K: that part of the Ecliptique D K is the length of ſuch a Starre, and the Bow or part of the, ſaid halfe Circle K F is the breadth towards the North becauſe that it ſtandeth by North of the Ecliptiqe.

The 13. Chapter, Concerning the right Aſcenſion and Declination of the fixed Starres.

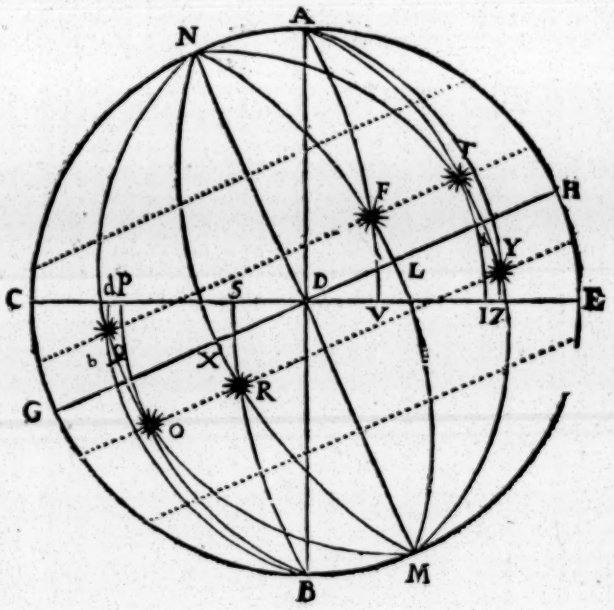
THe right Aſcenſion of the Starres is a part of the Equinoctiall, contained betweene two halfe circles, going both out of the Poles of the World, the one through the ſpeing Equinoctiall, the other throuh the Starres. Thier declination, beeing a bow of the like halfe circle betweene the Equinoctiall and the ſaid ſtarres. This is alſo two fold Northerly that which is by north the Line, and Southerly which ſtand by South from it.

Demonſtration.

IN the foregoing Figure, let C D E bee the Equinoctiall line. A the North, and B the South Pole of the world, F a certaine Starre; draw two halfe Circles out of the foreſaid Poles, the one A D B through the Equinoctiall or beginning of Aries, the other through the Starre marked with F which devideth the Fquinoctiall in L. The part of the Equinoctiall L D is the right Aſcenſion of ſuch a Starre and the Bow or part of the ſame Circle L F. his declination towards the North, or O I from the Starre to I towards the South.

The 14. Chapter, Concerning the change of the declination of the fixed Starres.

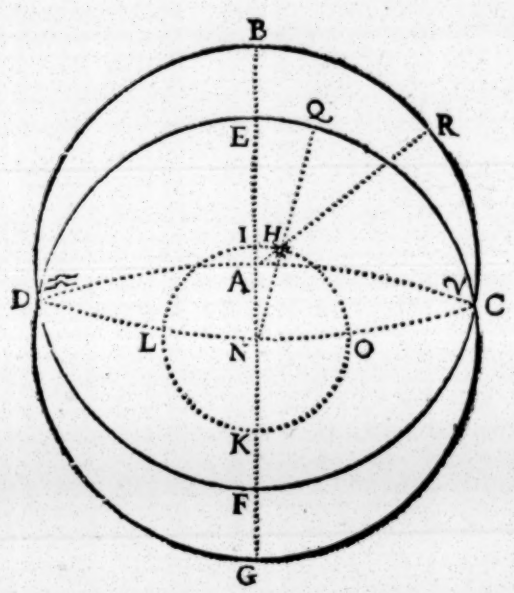
EVen as the ſtarry heaven in our ſight is drieven about every 24 Howres by the *Primum Mobile* upon the axepoints or Poles of the world from eaſt to weſt: ſo are theſe alſo carried about upon the Poles of the Ecliptique Line once in 25400 yeares, on the contrary from weſt te eaſt, even as the Sun once every yeare. By which the length of the Starres changeth every hondred yeares 1 degree, aud 25 minutes, or elſe every 20 yeares 17 minutes: but their breadth that is the diſtance from the Ecliptique remaineth unchangeable alwayes the ſame. Through the foreſaid change of the length (by length of time) changeth alſo the declination of the one more and alſo ſooner then of the other. Some are made leſſe, and ſome grow bigger. Some of them having Northerly declination become ſouther, and ſome others having ſoutherly declination become on the contrary northerly.



Demonſtration.

LEt C D E bee the Equinoctiall, A the northerne and B the ſoutherne Pole of the World, G D H the Ecliptique line N M the Poles thereof, G the beginning of Capricorne. D of Aries and H the end of Gemini or beginning of Cancer let (as is before ſaid the Starre at F its length by in the Ecliptique to L. its breadth by north of it a L F its northerly declination is then V F. If then the foreſayd ſtarre in many yeares runneth in length from F to L paralell with D H its breadth reſteth K T even untill the forogoing F L but its declination 1 T, is more then V F, the firſt becauſe that it beeing paralell with D H is more wended from the Equinoctiall line. The ſtarre at O whoſe length let it bee in the Ecliptique to Q and its breadth Q O hath ſoutherly declination P O: but running in length from O to R paralell with Q X its breadth remaineth X R even to Q O but its ſoutherly declination R S is leſſe then O P, becauſe that it beeing paralell with G D is come neerer the Equinoctiall. But if the ſame ſtarre commeth to run in length unto Y, its declination ſhall bee Y Z by north the line. That is ſpoken of the 6 firſt ſignes ♑ ♒ ♓ ♈ ♉ ♊. In the ſame manner commeth to paſſe the contrary part in the other 6 ſignes ♋ ♌ ♍ ♎ ♏ and ♐ thus. In the ſaine figure let H bee the beginning of Cancer, D Libra. and G the end of Sagitarius

rius. If a Starre at T having Northerly declination T I runneth in length untill F, its declination F V is leſſe then T I, becauſe it is come nearer the Equinoctiall, then if ſo be that it runneth in length untill B, its declination which was firſt northerly ſhall then bee ſoutherly from B to D. Through the foreſayd motions of the eigth Spheare changeth alſoo the declination of the Northſtarre, which is every yeare greather, that is, hee departeth the longer the more from the Equinoctiall, and commeth neerer the Pole, which ſhall endure to the yeare of our Lord 2091. then ſhall hee bee neareſt and no more then 26 minutes, and a halfe diſtant from it and after that time by little and little ſhall wend from it, ſoo that 12:00 yeares afterwards it ſhall ſtand from the Pole 47 degrees and 56 minutes. How this commeth to paſſe may plainly bee conceived out of this manner of Figure.



Let A bee the northerne Pole of the world in the middle of the Equinoctiall B D F C N the Pole of the Ecliptique in the middle of the Ecliptique E D G C, H the Northſtarre, its breadth from the Ecliptique is Q H 66 degrees and 2 minutes, and its diſtance from the Pole of the Zodiaque N H 23 degrees and 58 minutes, they remaine alwayes alike even as the breadth and diſtance of all fixed Starres from the Pole of the Zodiaque N H 23 degrees and 58 minutes they remaine alwayes one and the ſame even as the breadth and diſtance of all fixed Starres is from the Zodiaque Pole, as heretofore is ſayd. Its length from the Spring Equinoctiall or beginning of Aries for the yeare 1625. is C Q 83 degrees and 24 minutes.

Let there bee drawne a Circle out of N the Pole of the Ecliptique, as I L K O H; whoſe halfe Diameter let bee N H 23 degrees and 58 minutes even to the diſtance of the Nordſtarre from the Zodiaque Pole, there in is cloſed the Northpole of the world at A as beeing leſſe different from the Zodiaque Pole then the Northſtarre. Upon the like Circle the Nortſtarre taketh his compaſſe about the Pole of the Zodiaque (even as all the fixed Starres in 25400 yeares, its diſtance from the worlds Pole is for the yeare 1625 A H 2 degrees 42 minutes and ſhall in the yeare of our Lord 2091 bee come from H to I beeing then neareſt to the worlds Pole; and ſtands no further of then 26½ minut. going forwards from I alongſt to L untill K it ſhall then bee diſtant from the worlds Pole marked with A K 27 degrees and 60 minutes.

But becauſe the Starres keepe not alwayes one kind of declination, wee have for the furtherance of Mariners prepared theſe two following Tables. The one ſheweth their declination for the yeare 1645. And the ſecond for the yeare 1654. Beſides the declination there is adjoyned the complement of the declination; that is, how wide they ſtand from the Pole.

A Table of the Declination of the cheife of fixed Starres, with their diſtance from the Pole, in the yeare 1645. &c. and 1655.

Theſe Starres following are all of them placed in the Southſide of the Equinoctiall Line, and have ſoutherly Declination.

	Anno 1654.		Anno 1655.	
	Southerly declination. degr. min.	the diſtance from the S. Pole degr. min.	Southerly declination. degr. min.	the diſtance from the S. Pole degr. min.
The Northermoſt in the whales tayle.	10 46	79 14	10 43	79 17
The Southermoſt in the whales tayle.	19 57	70 3	19 54	70 6
Regel, the left foot of Orion. — —	8 39	81 21	8 38	81 22
The firſt of the three in the Girdle of Orion, or the 3 Kings.	0 36	89 24	0 36	89 24
The ſecond in the girdle, or 3 Kings. ——	1 27	88 33	1 27	88 33
The third. — —	2 10	87 50	2 10	87 50
The great dogge, Syrius.	16 13	73 47	16 13	73 47
The heart of the Waterſnake. — ——	7 8	82 52	7 10	82 50
Spica Virginis, or the corneare. — —	9 15	80 45	9 18	80 42
The South Balance.	14 30	75 30	14 33	75 27
The North Balance.	8 1	81 59	8 4	81 56
The Northermoſt and firſt at the left hand of the ſnakebearer Ophiuchus. ——	2 46	87 14	2 48	87 12
The left knee of Ophiuchus.	9 46	80 14	9 48	80 12
The right knee of the ſnakebearer.	15 12	74 48	15 13	74 47
Antares the heart of the Scorpion. — —	25 33	64 27	25 35	64 25
The Northermoſt of the 2 in the hornes of Capricorne. ——	13 33	76 27	13 32	76 28
The Southermoſt of the Two. —— ——	15 50	74 10	15 49	74 11
The former or moſt weſterly, of the 2 ſtarres in the tayle of Capricorne. — —	18 10	71 50	18 8	71 52
The Second moſt eaſterly. —— ——	17 39	72 21	17 37	72 23
The left ſhoulder of Aquarius. ——	7 4	82 56	7 2	82 53
The right ſhoulder of Aquarius.	2 0	88 0	1 57	88 3
The uttermoſt of Aquarius named Famahand. — —	31 25	85 35	31 22	58 38

These wich follow are scituate in the North side of the Æquinoctiall Line, and Decline Northward.

	Anno 1654		Anno 1655.	
	Northerly declination. degr. min.	the distãce from the N. Poole degr. min.	Northerly declination. degr. min.	the distance from the N. Pole degr. min.
Alrucuba the northstar	87 25	2 35	87 28	2 32
The midlmoſt or brighteſt of the Watchmen. —— ——	75 40	14 20	75 37	14 23
The breſt of Caſſiopeia.	54 37	35 23	54 40	35 20
The hippe of Caſſiopeia.	58 49	31 11	58 52	31 8
The knee of Caſſiopeia.	58 22	31 38	58 25	31 35
The brighteſt in the cleare of Caſſio.	57 13	32 47	57 17	32 43
The head of Andromeda. —— ——	27 9	62 51	27 12	62 48
The Girdle of Andromeda. —— ——	33 47	56 13	33 50	56 10
The moſt Southerly foot of Andromeda.	40 36	49 24	40 39	49 21
The brighteſt in the head of the Ram.	21 46	68 14	21 49	68 11
The brighteſt in the mouth of the Whale.	2 40	87 20	2 42	87 18
The brighteſt in the head of Meduſa.	39 33	50 27	39 35	87 25
The brighteſt in the ſide of Perſeus. ——	48 31	41 29	48 33	41 27
Aldebaran the South eye of the Bull.	15 48	47 12	15 50	74 10
The North horne of the Bull. —— ——	28 16	61 44	28 17	16 43
The South horne of the Bull.	20 54	69 6	20 54	69 6
The left ſhoulder of the Gayant Orion.	5 59	84 1	6 0	84 0
The right ſhoulder of Orion. —— ——	7 18	82 42	7 18	82 42
Hircus or Capella in the left ſchoulder of the carter Erichtonius.	45 35	44 25	45 36	44 24
The right ſhoulder of Erichtonius.	44 52	45 8	44 52	45 8
The brighteſt in the foot of the twinnes.	16 40	73 26	16 40	73 20
The head of the Northermoſt twinne Caſtor. —— ——	32 36	57 24	32 35	57 25
The head of the ſouther moſt twinne Pollux	28 50	61 10	28 49	61 11
Procyon the little dogge.	6 7	83 53	6 6	83 54
Regulus, Baſiliſcus the heart of the Lyon.	13 40	76 20	13 37	76 23
The middlemoſt and cleareſt in the neck of the Lyon.	21 37	68 23	21 34	68 26
The brighteſt in the back of the Lyon.	22 28	67 32	22 24	67 36
The taile of the Lyon.	16 33	73 27	16 30	73 30
The Northermoſt hinderwheele of the great Wagon.	63 40	26 20	63 37	26 23
The Southermoſt hinderwheele of the great Wagon. ——	58 17	31 43	58 14	31 46
The Northmoſt fore whele of the Wagon.	59 0	13 0	58 57	31 3
The Souther forewheel of te Wagon.	55 41	34 19	55 37	34 22
The neereſt Horſe to the Wagon.	57 56	32 4	57 53	32 7
The middlemoſt Horſe.	56 49	33 11	56 46	33 14
The uttermoſt Horſe.	51 8	38 52	51 5	38 55
Vindemiatrix the north Wing of Virgo.	12 54	77 6	12 51	77 9
The Girdle of the Virgin.	5 22	84 38	5 19	84 41
The left ſhoulder of Bootes. ——	39 50	50 10	39 47	50 13
The bright Star betwixt the thighes of Bootes Arcturus. ——	21 5	68 55	21 2	68 58
The brighteſt in the North Crowne.	27 57	62 3	27 55	62 5
The brighteſt in the neck of the Serpent Ophiuchus. ——	7 37	82 23	7 35	82 25
The head of Hercules.	14 51	75 9	14 50	75 10
The head of the Serpentbearer.	12 52	77 8	12 51	77 9
The brighteſt in the Dragons head.	51 37	38 23	51 37	38 23
Lyra. ——	38 30	51 30	38 30	51 30
The taile of the Eagle.	13 24	76 36	13 25	76 35
Vultur the middlemoſt and brighteſt in the Eagle. ——	8 0	82 0	8 1	81 50
The breſt of the Swan.	39 9	50 51	39 11	50 49
The taile of the Swan.	44 3	45 57	44 5	45 55
The Girdle of Cepus.	69 1	20 59	69 3	20 57
That in the mouth of Pegaſus.	88 16	81 44	8 18	81 42
Sheat the brighreſt in the legge of Pegaſus.	26 10	63 50	26 13	63 47
Marcab the foot of Pegaſus. — —	13 19	76 41	13 21	76 39
The uttermoſt in the Wing of Pegaſus.	13 13	76 47	13 16	76 44

By this table you may finde the declination of any of theſe Starres, in the yeeres betweene, provided, that you proportion the difference of the declination to the difference of the time.

Example.

I deſire to know the Declination of the tayle of the Lyon in the yeere 1650. I find in the table of thee yeere 1645. 16 gr. 33. min. and for the yeere 1655. 16. degrees 30. min. the min. having as much taken from them as he yeeres, I finde 16 gr. and a halfe, leſſening declination.

II. Example.

I deſire to know the declination of Aldebaran the eye of the Bull in the yeere 1650 I finde in the yeere 1645. 15 gr. 48 min. and for the yeere 1655. 15 degr. 50. minut. the minut. having as much taken from them in proportion as the yeeres. I finde 15 gr. 49 min. increaſeing declination.

The 15. Chapter, how yow may eaſily learne to know the fixed Starres, and at wat time every one of them commeth to the South.

HOw needfull and profitable it is for a Sea-faring man to have knowledge of the fixed ſtarres and their uſe, eſpecially in ſtrange voyages, and farre Navigations, that is more then well known to all experienced and underſtandig

ſtanding Steerman moreover, becauſe wee have deſcribed in the foregoing chapter the declination of the fixed ſtares and their diſtance from the Pole, wee ſhall here ſhew you a way and fitting meanes how you ſhall eaſily learne to know them and that perfectly at all times when as every one of them come in the ſouth or at their height, and are fitting to be uſed.

Firſt you muſt know that the way of the Sun in the heaven is immoveable with the fixed Starres with the which it is every day once turned about from eaſt to weſt without change, but onely that the Sunne doth contrary wiſe run this foreſaid yearely courſe from weſt to eaſt, whereby hee in his daily courſe, commeth ſo farr behind, that hee in a whole yeare goeth one courſe leſſe then the fixed ſtarres: and that the fixed ſtarres turne once more about in a yeare then the Sunn, ſo that they every day come 4 min. ſooner to the diviſion, that commeth every weeke to about halfe an houre & every month 2 houres, which that it may the better bee underſtood, wee will make it evident by an example taken from the ſtarre called Syrius, or Canis major the great dogge, which alwayes followeth a little after the Image of the Gyant Orion and his Girdle, which is called the three Kings, which appeare a little over the great Dogge, it is the greateſt and cleareſt of al the fixed ſtarres, which for the moſt part is knowne unto all Sea-faring men, his declination is ſouthward from the Line 16 degrees, and 13 minutes.

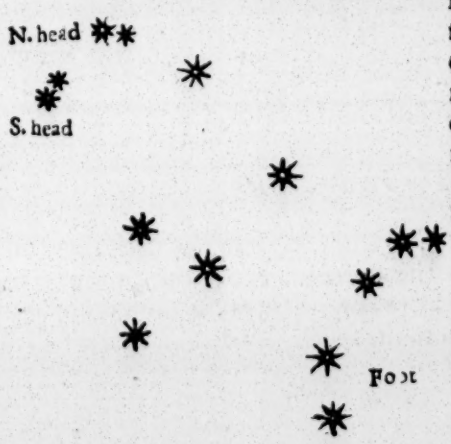
And it is ſouth upon the 24 of January new ſtile, at ten of the clock at night. The 23 of February at 8 of the clock at night. The 28 of March at ſix of the clock at night. The 30 of April at foure of the clock in the evening. The 30 of May at two of the clock afternoone. The 28 of June at 12 of the clock at noone, even with the Sun. The 28 of July, at ten of the clocke before noone. The 29 of Auguſt at eight of the clocke before noone. The 1 of October at ſix of the clock in the morning. The 12 of November at foure of the clock in the morning. The 1 of December at two of the clock in the morning. The 28 of December at 12 of the clock at night.

Whereby every man may eaſily reckon at what houre and time this ſtarre is ſouth every day in the yeare, as well in the day time when you cannot ſee it, as in the night when wee may ſee it. And if you deſire to know the like touching all the reſt of the fixed Starres upon every day in the yeare, then marke what was ſaid before, upon what houre of the day before ſet downe, the great Dogge commeth into the ſouth, and by the Tables hereafter following, touching the declination of the Stars, marke how long time the ſtarre you ſeeke for, commeth into the ſouth before or after the great Dogge, & by that meanes you ſhal finde the juſt and perfect time that you deſire.

The 16 Point. The Table of the declination of the fixed Stars; and alſo an Inſtruction of the time in which each of them commeth into the ſouth, alſo how you ſhall know them.

The Twinnes.

THe figure Gemini (in Engliſh the Twinnes) is ſcituated direct north, from the great Dogge, or Canis Major in the ſame manner as it is here deſcribed, the north head thereof commeth 40 minutes after the Dogge into the South, his declination is two and thirty degrees, and 37 minutes from the Line Northward.



The ſouth and loweſt had thereof commeth 54 minutes afrer the great Dogge into the ſouth; and hath his declination towards the north, 28 degrees, 51 minutes.

The cleareſt in the Foot commeth a quarter of an houre before the great Dogge into the South, his declination is 16 degrees and 40 minutes towards the north.

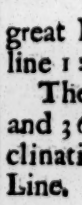
Canis Minor, or the little Dogge, called Canicula, Procyon.

This little Dogge Canicula hath 3 ſtarres, in this forme, the cleareſt of them commeth 50 min. after the great Dogge into the South: his declination is ſix degrees, 7 minutes in the northſide of the Linie.



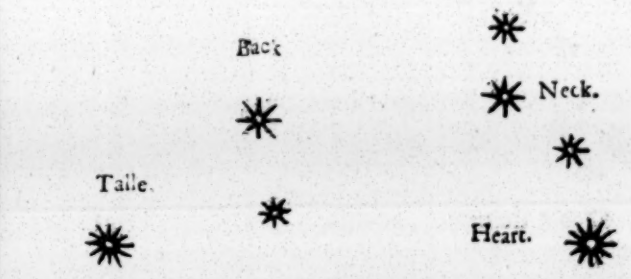
The Water Snake, Hydra.

The Heart or the cleareſt in the Waterſnake commeth after Syrius or the great Dog two houres, 40 minutes to the ſouth, his declination is in the ſouthſide of the Line 7 degrees and 8 minutes, and ſheweth it ſelfe with ſuch little ſtars as are here noted, whereby he is eaſily knowne.



The Lyon.

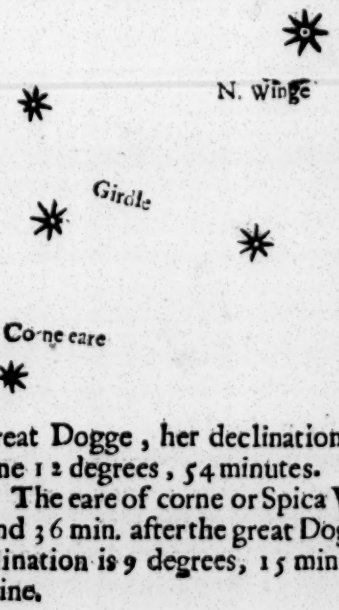
The Lyon hath foure beautifull ſtars, fit for uſe, & ſheweth it ſelfe with other, as is here ſet fort, the firſt and foremoſt of them is called Regulus or Baſiliſcus otherwiſe the Heart of the Lyon, which commeth 3 houres and 30 minutes after the great Dogge into the ſouth; his declination is 13 gr. forty min. in the northſide of the line; the ſecond called the necke of the Lyon 3 hour. 30 min. after the great Dogge into the ſouth; and hath his declination from the line 21 gr. 37 m. the Back of the Lyon comes into the ſouth 26 min. after the great Dogge: his declination is in the northſide of the line 22 gr. 28 min. the taile of the Lyon comes 5 houres after the great Dogge into the ſouth: his declination is 16 gr. 33 min. in the Northſide of the Line.



Virgo, or the maide.

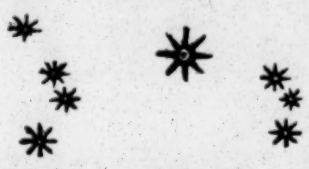
After followeth Virgo, whereof the principall and cleareſt ſhewes this ſhape, as they are here pourtrained: the Girdle of the Virgin comes into the ſouth, ſix houres 12 minutes after the great Dogge, her declination is five grad. 22 minutes in the Northſide of the Line.

That which is in the Wing called Vindemiatrix comes into the South, 6 houres 16 min. after the great Dogge, her declination is in the Northſide of the line 12 degrees, 54 minutes.



The eare of corne or Spica Virginis commeth 6 houres and 36 min. after the great Dogge into the ſouth, her declination is 9 degrees, 15 minutes in the ſouthſide of the Line.

Bootes the Waineman.



Seven houres 30 minutes after the ſtar called Syrius, the cleareſt ſtar of Bootes comes into the ſouth & ſtandeth between his thighes, in this forme, with ſome other ſtars, and is called Arcturus, his declination is in the Northſide of the line 21 degrees 5 minutes.

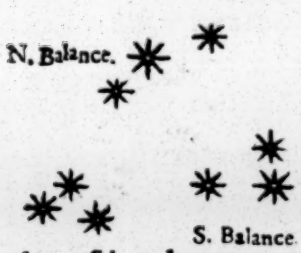
The Northern Crowne.



After Bootes followeth the North Crowne, bearing faſhion of a Circle, as followeth, of the Mariners, it is called the Hoſpital, and when in cleare whether, they behold ſome ſmall ſtars in it, they call them the ſick; the greateſt and cleareſt of them comes eight houres, 58 minutes after the great Dogge in tho the South, its declination is in the Northſide of the Line 27 degrees, 57 minutes.

The Waights, Libra.

The Ballance or Waights, follow the ſigne of Virgo as followeth.



The South Ballance comes eight houres after the great Dogge to the South, its declination is in the ſouthſide of the Line 14 degrees, 30 minutes.

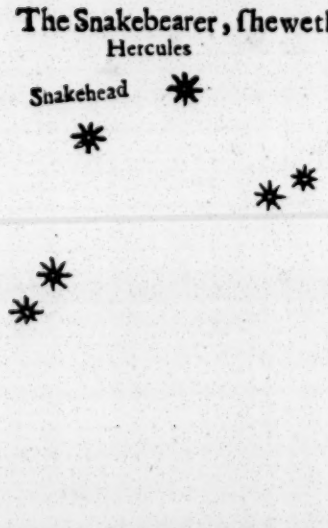
The North Ballance comes 8 houres, 48 minutes after Syrius to the South, the declination thereof is 8 degrees, 58 minutes in the ſouthſide of the Line.

The Scorpion, Scorpio.



Then followeth the Scorpion, as this figure ſheweth, the heart of Scorpion, Antores commonly called, comes 9 houre, 38 minutes after Syrius into the ſouth, his declination is 25 degrees 33 minutes in the ſouthſide of the Line.

The Snakebearer, and Hercules.



The Snakebearer, ſheweth himſelfe, as it appeareth in the figure, the formoſt ſtarre, and that which is moſt towards the north of the two, which ſtandeth on the left hand, comes nyn houres 25 minutes after the great Dogge into the ſouth his declination is 2 degrees, 46 minutes ſouth from the Line.

The head of the Snakebearer comes 10 houres, 48 minutes after Syrius to the ſouth, his declination is 12 degrees, 52 minutes in the Northſide of the line.

The head of Hercules ſtandeth by the head of Serpentarius, and comes 20 minutes before it into the ſouth, and hath his Declination Northward 14 degrees, 51 minutes.

Lyra.



Then followes Lyra, in this manner, the greateſt with two little ons by it, which the Mariners call the three Caſtles, the lighteſt and cleareſt ſtarre, comes 11 houres, 55 minutes after the great Dogge into the ſouth, the declination thereof is 38 degrees, 30 minutes, on the northſide of the Line.

The Eagle.



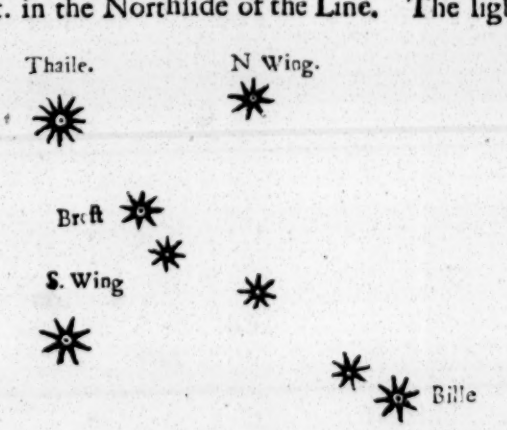
Sheweth himſelf as this figure declareth, the cleareſt of theſe that is to ſay the middlemoſt of the three, comes 13 houres after the great Dogge, or 11 houres before, into the ſouth, the declination thereof is 8 degrees on the Northſide of the line.

The Swanne.



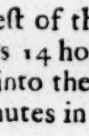
The Swanne is ſhaped thus: the ſtarre that is the moſt North in the breſt, cometh 13 houres, 40 minutes or after 10 houres 20 minutes into the ſouth before the great Dogge, and hath his declination in the Northſide of the Line 39 degrees, 9 minutes. That which ſtands moſt to the ſouth of the two in the breſt, is a new ſtarre, and hath ſhewed it ſelf firſt in the yeer 1600, the North wing comes 10 houres, 4 minutes after the Dogge into the ſouth, the Northern declination thereof is 44 degrees, 15 minutes.

The S. Wing comes 14 houres after the great Dogge into the ſouth, the declination of it is 32 gr. and thirtie minut. in the Northſide of the Line. The lighteſt and



cleareſt of the Swanne, which is placed in the taile of it comes 14 houres after the great Dogge, or 10 houres before into the ſouth, the declination of it is 44 degrees, 3 minutes in the Northſide of the Line.

Capricorne.

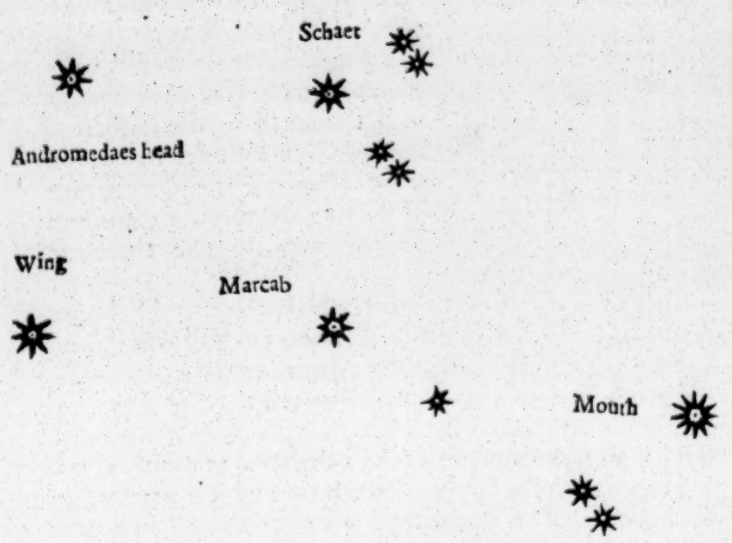


The moſt ſoutherly and cleareſt of twe two lighteſt in the houre of Capricorne, as is here to bee ſeen, cometh 13 houres, 30 minutes after the great Dogge into the ſouth; the declination is 15 degrees, 50 minutes in the Northſide of the Line.

The Flying Horſe.

The Flying Horſe Pegaſus, we may ſee in the havens in this proportion, the ſtarre in the mouth comes 14 houres, 56 minutes after, or 9 houres, 4 minutes before the great Dogge into the ſouth, his declination is 8 degrees, 15 minutes.

The

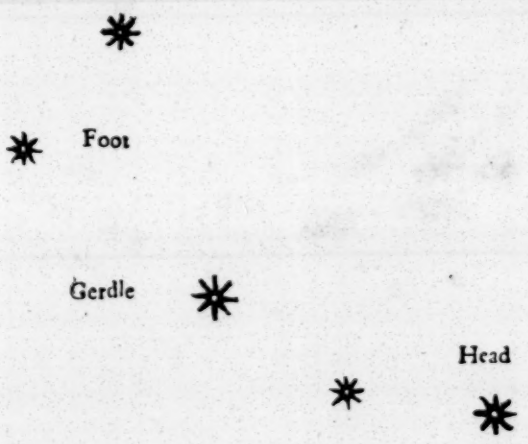


The northside of the line. That which ſtandeth on the right hippe or right legge called the Schaet, the ſame comes 16 houres, 16 minutes after the great Dogge, or 7 houres, 44 minutes before it into the ſouth, the declination of it is 26 degrees, 9 minutes in the Northſide of the Line, at the ſame time comes the firſt and foremoſt into the ſouth; placed in the Wing, which is called Marcab. The declination of it is 13 degrees. 18 minutes on the Northſide of the Line.

The laſt and utmoſt in the Wing of Pegaſus, comes 16 houres, 44 minutes after the great Dogge, or 7 houres 16 minutes before it into the ſouth; the declination of it is 12 degrees, 3 minutes, in the Northſide of the Line.

The Head of Andromeda making with ſome ſtarres of Pegaſus a great quadrangle) whereby it is eaſily known) comes after the great Dogge into the ſouth 17 houres, 24 minutes, or 6 houres, 36 minutes before it, the declination is 27 degrees, 39 minutes North from the Line.

The Image of Andromeda is placed in the Heavens in this ſort: that ſtarre that it is in the gridle comes before the great Dogge into the ſouth 5 houres, 40 minutes,

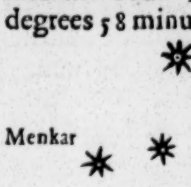


hath his declination in the Northſide of the line 33 degrees, 45 minutes that which is in the moſt ſoutherly foot comes 4 houres, 48 minutes before the great Dogge into the ſouth, the declination of it is 40 degrees, 35 minutes in the Northſide of the Line.

The ſtarre named Fomahant is placed a good ſpace in the ſouthſide of the Flying horſe, in the uttermoſt part of the floot running from Aquarius, it is a great and cleare ſtarre, and comes 16 houres, 16 minutes after Syrius, or 7 houres, 44 minutes before it into the ſouth, the declination there of is 31 degrees, 26 minutes in the ſouthſide of the Line.

Cetus, or the Whalfish.

After theſe followes the Whaleſiſh, it hath two notable ſtarres in the tayle of it, the more Northerly comes before the great Dogge into the ſouth 6 houres, 28 minutes, the declination of it is 10 degrees, 47 minutes in the ſouthſide of the Line, 24 minutes after comes the ſouthermoſt into the South, and it is in the ſouthſide of the Line 19 degrees 58 minutes.



The cleareſt in the mouth named Menkar; ſhewes it ſelfe with two other ſtarres in this order, the declination is in the Northſide of the Lines 2 degrees, 37 minutes.



In the head of Aries there is a cleare ſtarre appeareing with that in the Horne, in form as is here deſcribed, and comes foure houres, 43 minutes into the South, before the great Dogge, ſtandeth in the Northſide of the Line 21 degrees, 44 minutes.

Somewhat more Northerly followeth the head of Meduſa as it is here dechiphered, the cleareſt of theſe comes before the great Dogge into the ſout 3 houres, 46 minutes, and is placed in the Northſide of the Line 39 grad. 42 minutes.



Directly North followes Perſeus a bright ſtarre in forme thus, and it comes before Syrius into the South three houres and a halfe, hath the declination in the Northſide of the Line 48 degrees, 31 minutes.

Then followes the image of the Bull in whoſe head there are ſome ſtarres in the forme of a bee hive laying a ſide the greateſt, brighteſt, and moſt eaſterley ſtarre, called the eye of the Bull, Aldebaran, or Oculus Tauri, comes two houres 14 min. before the great Dogge into the ſouth, his declination is in the Northſide of the line 15 degrees 41 minutes.



The Coachman, Ericthonius.

The figure of Auriga, or the Coachman, ſhewes himſelfe a little after the Bull in the ſouth, in ſuch ſort as is here deciphered, the greateſt & brighteſt of them called the goat, hircus, or capella, come 1 houre, 40 min. before the great Dogge into the South; the declination of it is 45 degrees, 34 min in the northſide of the line.

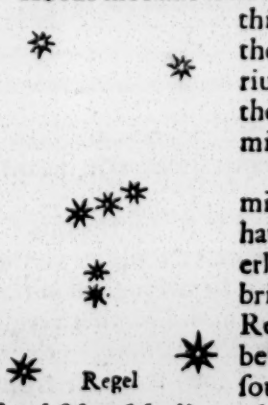


The right ſhoulder goeth 57 minutes before the great Dogge toward the South; his declination is in the Northward 44 degrees, 51 minut.

Alſo that called the North Horne of Taurus, goes one houre, 22 minut. before the great Dogge into the South, his declination is 28 degrees, 15 minutes Northward.

The Gyant.

About the ſame time comes the Gyant Orion, being of this figure, it is eaſie to be known, the left Shoulder cometh before Sirius into the ſouth 1 houre, 24 min. the declination of it is 5 degrees, 59 minutes.



The right Shoulder commeth 58 minutes before the great Dogge, and hath 7 degrees, 17 minutes of northerly declination. The great and bright ſtarre in the left Foot called Regel, goeth one houre 32 minutes before the great Dogge into the ſouth, the declination of it is in the ſouthſide of the line 8 degr. 40 min.

The first of the three in the Girdle, which are called the three Kings, goe one houre 16 minutes before Syrius into the south; the declination of it is 36 minutes in the Southside of the Line.

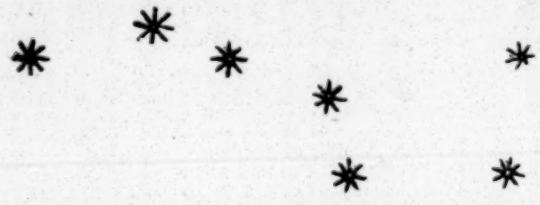
Foure minutes after commeth the second or middlemost into the South; the declination is 1 degr. 27 min.

Nine minutes after the first commeth the last or third of the three Kings into the South, and hath his declination in the Southside of the Line 2 degr. 10 minut.

These three Kinges stand alwayes and appeare a little above the great Dogge, whereby they are easily knowne.

Here doe follow some Starres which show themselves in the North, and therefore by some men may are called Northstares.

The Stares of the great Coach or Wagon, very serviable and fitt for those that sayle farres towards the



South; they come in the time here following specified unto their highest, the hinder weeles come intho the North to their highest after Syrius or the great Dogge 4 hour. 12 minutes, the most Northern hath his declination from the Equinoctiall 63 degrees, 41 minutes, and is distant from the Pole 26 degrees, 19 minutes; the declination of the Southermost is 58 degrees, 18 minutes, it is distant from the Pole 31 degrees, 42 minutes.

The Southermost of the forewheeles comes into th North to his highest right over the Pole 5 houres, 5. min after the great Dogge is past the South; his declination 55 degr. 42 min. in the Northside of the Line, and is distant from the Pole 34 degrees, 18 minutes.

The most Northern in the fore wheele followeth 23 minut. after, and then commeth to his highest; the declination of it is 59 degrees, 1 minute, and it standeth above the Pole 30 degrees, 59 minutes.

The Horse the next to coach commeth to its highest in the North, 6 houres, 8 minutes, after the great Dogge is gone through the South; it declineth to the North 57 degrees, 57 min. is distant from the Pole 32 degr. 3 min.

The middlemost Horse comes halfe an houre after it to the highest; the declination oft it is 56 degrees, 50 min. therefore it standeth distant from the Pole 33 degrees, 10 minutes.

The uttermost Horse of the coach cometh to the highest 7 houres, 7 minut. after Syrius is past through the South, the declination of it is 51 degr. 9 min. it is distant from the Pole 21 degr. 51 minutes.

The middlemost and brightest of the waiters declineth to the north 75 degr. 43 minutes, is distant from the Pole 14 degr. 17 minutes.

NOTA.

Touching the north Starre her declination, and howit is to be used. with the watchmen is declinated in the discourse following,



The Dragons head is formed as this figure declareth, the star most southerly is the cleareſt, and cometh to the highest in the north 11 houres and 5 min. after that Syrius is past the South, the declination is 51 degr. 37 minut. in the northside of the Line; standeth from the Pole 38 degrees 23 minutes.



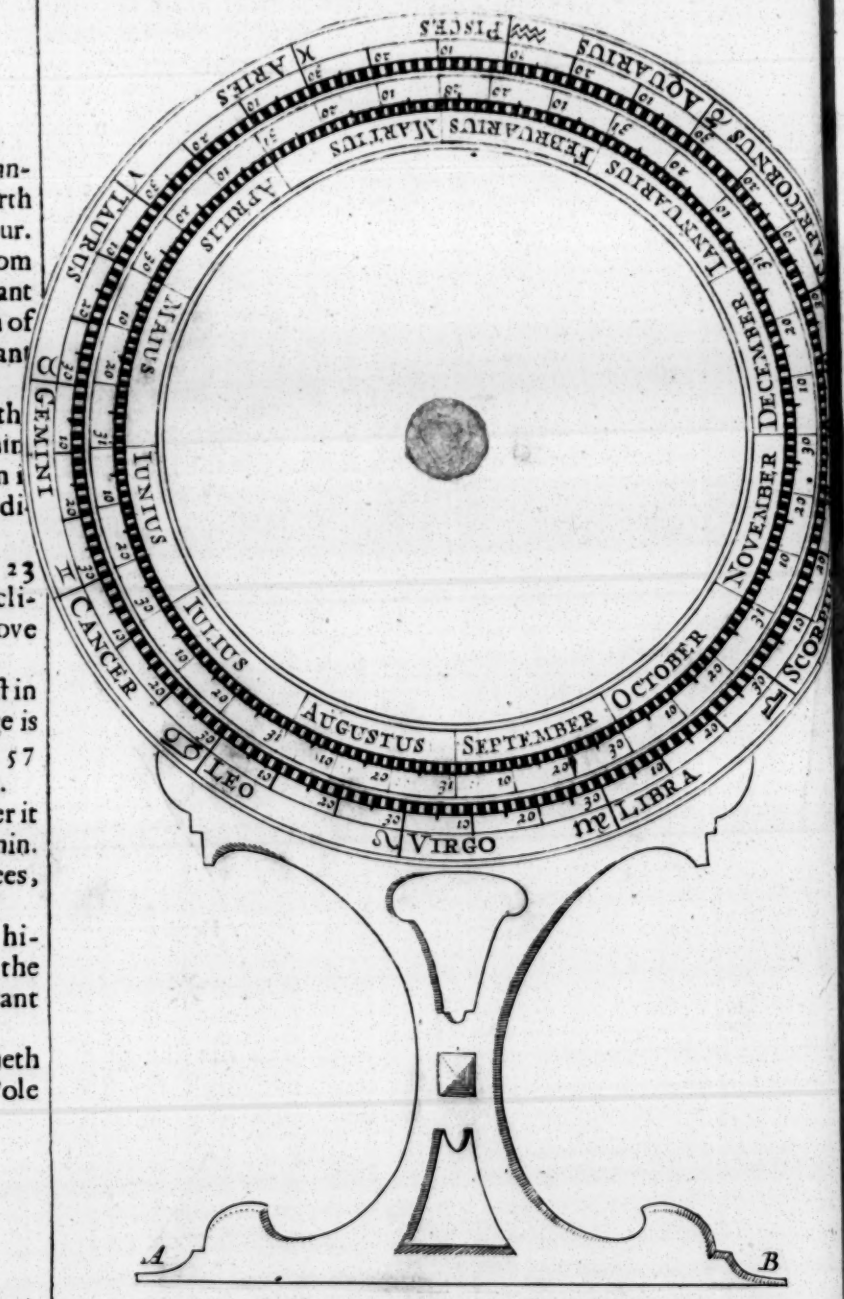
The Image of Cassiopeia sheweth it self beneath the Pole in this proportion, the first Star standing in the Chaire commeth into the north to the highest 6 houres, 36 minutes before the great Dogge, the declination of it is 57 degrees, 12 minutes to the north, and therefore 38 degrees 48 minutes.

Half an houre after followeth the Breſt named Schedir, the declination is 54 degrees, 36 minutes, and thus it standeth from the pole 75 degrees, 24 minutes.

Fifteen houres after that followeth the star that standeth in the Hipp, and declined 58 degrees, 48 minutes, so that it standeth from the Pole 31 degrees 12 minutes.

Yet 27 minutes later followeth that which is placed in the knee, that its declination 58 degrees, 21 min. it is distant from the Pole 31 degrees, 39 minutes.

The 17 Point. How to find the houre of the day or of the night.



To finde the houre of the day at any hight, will bee done most readily and certainely with such a water compas, as is described in the Chapter of the ebbing & flowing of the Sea: in the night one may finde it by the night-diall, as this Figure above describeth, which hath two rondels; the one moveable, the other immoveable, in the lowest which is immoveable are the 12 signes of heaven placed is also the moneth and dayes of the yeare. On the moveable

moveable roundel are the houres, this turnes with the gnomen, whose right side answereth to the middle poynt where there must be a nayle wit a hole, through which a man may see. The use of this night diall is this: We set first the foot to the twelfth houre on the moveable roundel and to the day of the yeere, on the undermost un moveable roudel, and set the Instruments hight, with the lowest corner of the foot A B, so that is stand water-pas, in such sort, that a man may see the North star through the hole of the nayle, turning the diall up and downe, so long till the hinder wheeles of the great Wagon come into the diall, which being so, the gnomen shal shew the houre on the moveable roundel. And if in place of the hinder wheels of the Wagon you take the brightest of the watchtmen, it will be 4 hour. 15 minut. later, as the diall will shew, Because the wheeles aforesaid of the great car goe so much before the wayters.

Men may finde the houte by the ascension of the Sunne and the Starres in this manner; wen wee see any Star in the South, whose just ascension is knowne, and that we know thee true ascension that dey, then draw the ascension of the Sunne from the ascension of the Star, the remainder we divide into houres by 15, (for 15 degrees make 1 houre) and this wil be the right houre of the time, but if the ascension of the Sunne be more then te Stars, in that cause you shall add. 360 degrees to the ascension of the Star, ande then to as aforesayd.

I. Example.

On the 10 of April, in the evening, in the south, I se the heart of the Lyon, whose right ascension is 147 degr. the ascension of the Sunne on that day is 19 degrees, take those from the ascension of the star, there remaines 128 degrees, and these divided by 15, I finde 8 houres, 8 degrees over plus, and for as much as 15 degrees make one houre, every degree will make 4 minutes, the 8 degrees over plus; make 32 minutes of an houre, it will be then at that time 8 houres, 32 minutes from the noone tyde.

II. Example.

On the 5 of November in the night I finde in the south the Star Aldebaren, the south dye of the Bull, whose right ascension is 64 degrees: the Sunnes right ascension on that day 220 degrees, which is more then that of Aldebaran, therefore I add to the ascension of the Star 360 degrees, it makes 424 degrees, the Sunnes right ascension being taken from this, the remains 204 degr. which is the difference betweene the ascension of the Sunne and the Star aforesaid, which being devide by 15 you shall finde 13 houres, 8 degrees, which make 36 minutes, it is then 13 houres 36 minutes from the noone tyde, that is 1 houre, 36 minut. after midnight.

How to finde the ascension on any day in the yeare of the Sunne and the Stars, we have here adjoyneth 2 tables, the one of the Sunne, showing from 5 dayes to 5 dayes the Sunnes ascension, out of with you may easily finde the same in other dayes. The other for thirtie of the primest fixed Starres, both of them onely by degrees, that being sufficient for this businesse.

The 18 Point. A Table of the right ascensum of the Sunne.

The first number in the table shewed the day of the moneth, the second of degrees of the ascension, of the Sunne on that day.

Janu.		Febr.		Mart.		Apr.		May.		Iuni.	
da.	deg.	da.	deg.	da.	deg.	da.	deg.	da.	deg.	da.	deg.
5	287	5	319	5	346	5	14	5	42	5	73
10	291	10	324	10	351	10	19	10	47	10	78
15	297	15	329	15	355	15	24	15	52	15	83
20	303	20	334	20	360	20	28	20	57	20	88
25	308	25	339	25	4	25	33	25	62	25	94
31	314	28	342	31	10	30	38	31	68	31	99

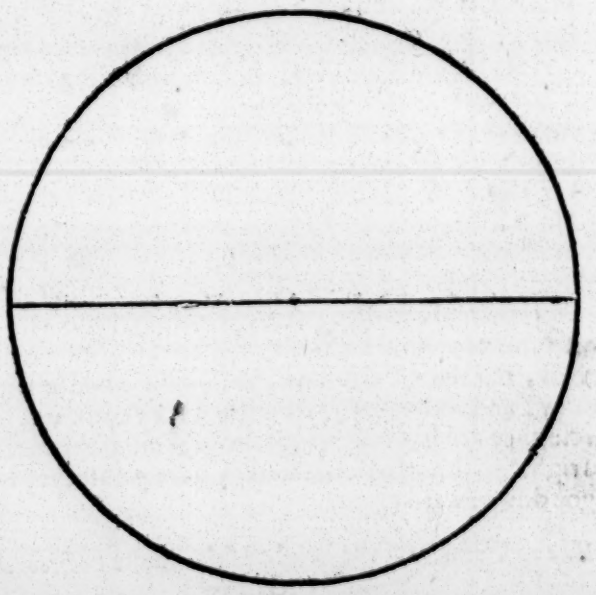
Iuli		Aug.		Sept.		Octo.		Nov.		Dec.	
da.	deg.	da.	deg.	da.	deg.	da.	deg.	da	deg.	da.	deg.
5	104	5	135	5	164	5	191	5	220	5	251
10	109	10	140	10	168	10	195	10	225	10	257
15	114	15	145	15	173	15	200	15	231	15	263
20	119	20	149	20	177	20	205	20	236	20	268
25	124	25	154	25	182	25	210	25	241	25	274
31	130	31	159	30	187	31	215	30	246	31	281

A Table of the right ascension of the primest Starres.

THe Girdle of Andromeda, The cleareſt in the head of the Ram.	12 degrees 27 degrees
Menkar the brighteſt in the mouth of the Whale	41 degr.
Aldebaran, the south eye of the Bull.	64 degrees
Capelle in the left shoulder of Erichtonius.	72 degrees
Regel the left foot of Orion.	74 degrees
The Star in the left shoulder of Orion.	84 degrees
Syrius the great Dogge.	97 degrees
The North head of Gemini.	180 degrees
The South head of Gemini.	111 degrees
Procyon the little Dogge.	110 degrees
The brighteſt in the watersnake, Cor Hydræ	137 degrees
Regulus the Heart of the Lyon.	147 degrees
The tayle of the Lyon.	172 degrees
Vendemiatrix the right wing of Virgo.	191 degrees
Spica Virginis the eare of corne.	196 degrees
Arcturus the brighteſt in Bootes.	210 degrees
Arcturus the brighteſt in Bootes.	218 degrees
The South Waight.	210 degrees
The north Waight.	224 degrees
The brighteſt in the North Crowne.	230 degrees
Antares, the Hart of the Scorpion.	242 degrees
The Head of Hercules.	254 degrees
The Head of Serpentarius.	259 degrees
The tayle of the Eagle.	282 degrees
Vultur the cleareſt in the Eagle.	293 degrees
The Star in the mouth of the horse Pegasus.	521 degrees
Formohant the brighteſt in the end of Aquarius.	339 deg.
Marcab the sack or foot of Pegasus.	342 degrees
The uttermost in the wing of Pegasus.	358 degrees
The most Northerly in the Whales tayle.	360 degrees

The 19 Point. Of the Horizon, or the Circle that boundeth the sight.

WHere the heavens & the earth or the waters seeme in our sight to meete together, that is called the Horizon, or the Circle bounding the sight, becaus our sight endeth there, & can go no further by our Netherland Seafarers, it is alsoo called the Kimmen. This circle devideth the heavens just in two even parts, so that just the one halfe is seene by us here above, and the other halfe can not be seene by us, becaus it is hidden underneath us, which hap,



peneth in this manner. The earth, (as in the first chapter is shewed) standeth as a center in the middle of the heavens, the

the which by reaſon of the unmeaſurable quantitie or largenes thereof, is ſo farre ſeparated ſtom the earth, that the whole thickneſſe of the Earth in reſpect of the heavens, is no more then a point or prick, or at leaſt ſo little that it cannot be perceived by our ſight and that which by our ſight, along upon the Earth or the Water we can comprehend, (wich can not reach further then about three Dutch miles, that is 10 Enghliſh myles) ſeemeth in our eyes by reaſon of the ſpace ſo little, to be no other then an halfe Globe falling perpendicular upon a plaine, ſo that our ſight falleth in the heaven, as if we ſtood in the middlle point of the world, and ſaw right compaſſe wiſe, whereby it falleth out, that juſt the halfe of the Heaven is ſeene by us, and the other halfe is not ſeene by us, in like manner as if a man ſhould lay a line over the center of a Circle, then the one halfe of the Circle is above, and the other halfe is juſt under. All the heavenly light, as the Sunne, Moone, and Starres (by the turning of the heavens) comming above the Horizon, are ſeene by us, and going downe under it, goe out of our ſight.

The Zenith is the point of the heavens directly over our head, and is on all ſides equally diſtant from the Horizon, it is alſo called the Pole of the Horizon.

An Explication.

The Horizon is too bee conſidered in a two-fold manner: according to the true and the viſible, the true goeth every way right waterpaſſe from our ſight, that is paſſeth through the Center of the Sphere, as is ſayd, deviding it into equall parts, is every way from the Zenith 90 degrees the juſt fourth parts of a Circle.

The Viſible is the uttermoſt part of the Earth or Water, that our eye can reach or ſee, when our eye is juſt on the flatt or ſurface of the even Water, then the true and viſible Horizon are one and the ſame, but our eye lifted up above the ſurface of the Water, the ſight falleth (over the Globe of the earth) every where lower then water-paſſe, and thence it followeth that the viſible Horizon is lower then the true, although this be not much materiall in the Art of Navigation, for as much as it is recompenced by the refraction of the viſible Horizon. We have added this table, for thoſe that deſire to be exact, where men may ſee how much the viſible differs from the true that beingh changed or altred by feet.

The eye being elevated above the water.	The viſible Horizon is lower then the trues.
foote.	minutes.
1	1
4	2
8	3
14	4
20	5
27	6
37	7
39	8
53	9
66	10
82	11
100	12
104	13
163	14
186	15

Example.

THe ſight being elevated above the ſurface of the waters 14 feet, in the 1 Columne, in the 2 Columne over againſt it, you find 4 min. which the viſible Horizon is lower then the true. The ſight being lifted 140 feet about the Horizon, the viſible wil be 13 mi. lower then the true.

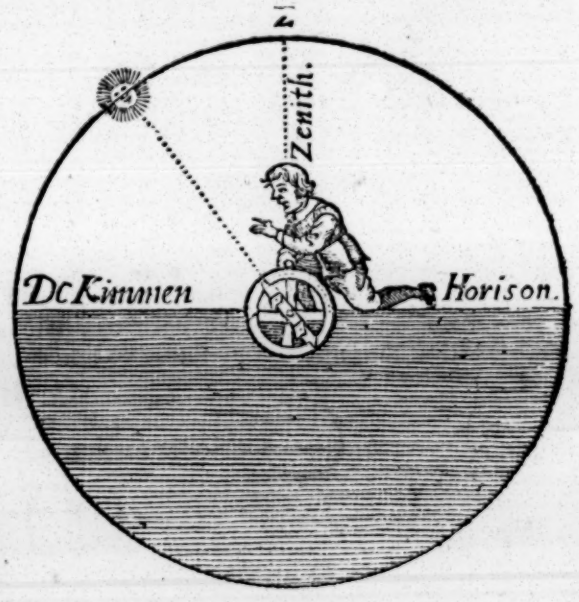
The 20 Point. Of the Meridian or Middle Circle.

THe Meridian is a Circle in the Heavens which we muſt conceive to paſſe through both the Poles of the world, right over our heads, and croſſe wiſe through the Equinoctiall, and to cut right through the Horizon North and South. The Sun touching this Circle is at the higheſt, and then it is juſt noone, or the middle time of the day, and likewiſe the ſtars when they come upon this Circle, they are like the Sun, at the higheſt of the Horizon and right South and as ſoone as they have paſt it they begin to goe downe ward againe.

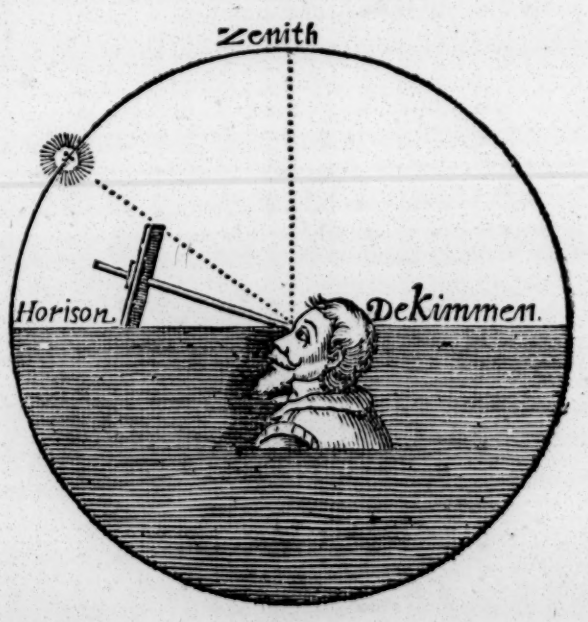
The 21 Point. Of the height of the Sunne or Starres, and what it is.

THe height of the ſunne or Starres is nothing elſe but the diſtance or ſpace that is between the Horizon and the Sun of Starre it ſelfe: which to underſtand perfectly, you muſt make, that we ſuppoſe a point or prick to be right above our heads in the Heavens, that is equally diſtant from the Horizon in all places, which point is called the Zenith, or the head point: now ſeing that the whole circuit of the heavens containeth 360 degrees and that the juſt halfe thereof is ſeen above the Horizon, it is certaine that this point called the Zenith in all places is above the Horizon 90 degr. whether you turn eaſt, weſt north or ſouth or any other way: now when the Sun riſeth above the Horizon, and aſcendeth higher and higer from it, and commeth toward this point or Zenith: we ſay that as many degrees as it aſcended, from the Horizon towards the aforeſaid point or Zenith, that the ſame is the height thereof, as by example, when he is riſen halfe up from the Horizon towards the Zenith, then he is 45 degrees and if he be riſen a third part from the Horizon the he is 30 degr. high, and ſo forth, the like is alſo to be underſtood of the height of the ſtars.

The 22 Point. How to meaſure or find the height of the Sun or of the Starres.

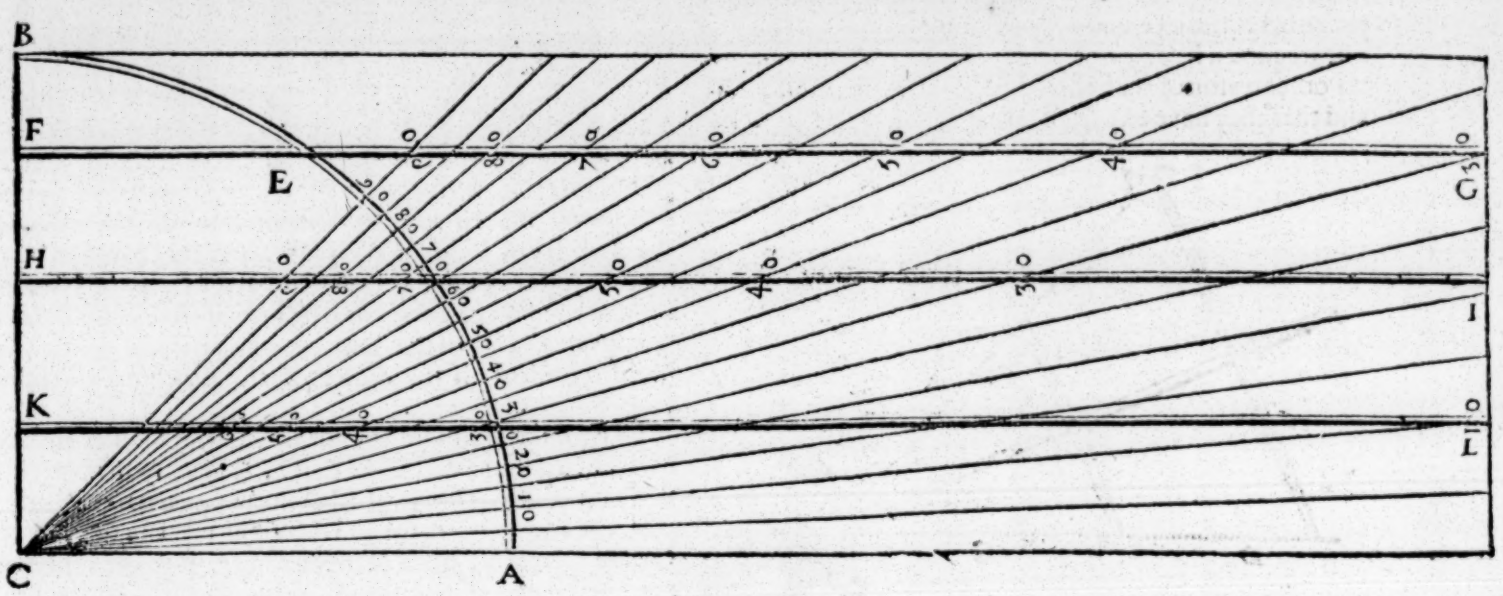


TO find the height the Mathematicians have deviſed divers fit Inſtruments, whereof there are two that are moſt uſed at ſea, which are the Aſtrolabium, and the common Croſſe-ſtaffe, the uſe of the Aſtrolabium is plaine and well known unto all men: for holding the inſtrument by the ring, let the Sun ſhine through the holes of the eares, the uttermoſt part of the Diall (counting from below upwards ſheweth how many degrees the Sun is riſen above the Horizon: as the former figure plainly ſheweth.



The Croſſe-ſtaffe is uſed thus, you muſt p'ace the end of the Staffe underneath the eye, then you muſt remove the

the Croſſe to and fro, untill the upper end of the Croſſe ſtandeth even upon halfe the Sun or Star, and the under end juſt with the Horizon, and then the Croſſe will ſhew you upon the ſtaffe, how many degrees they are in height. ſoo you account after thoſe numbers where of ninety ſtand that the end of the ſtaffe that is next to your eye, the computation going backward from the other end of the ſtaffe: for otherwiſe if you reckon by thoſe numbers that proceed forward from the end next your eye, then it will ſhew you how many degrees the Sun or Star ſtandeth from the Zenith, or Head point of the Horizon, as you may ſee by the figure enſuing.



The 23 Point. Hou you muſt make a perfect Croſſe-ſtaffe, and how you ſhall marke it.

THe Croſſe ſtaves are oftentimes made the one after the other by imitation, or patterns, and that many times without judgement or knowledge whether the partern bee good or not, whereof notwitſtanding a man ought to bee very certaine, for it is a matter of great importance and therfore I have here ſet downe two ſeverall wayes eaſie to be underſtood, how to make the ſame exquiſitely and perfectly upon good reaſon & good ground.

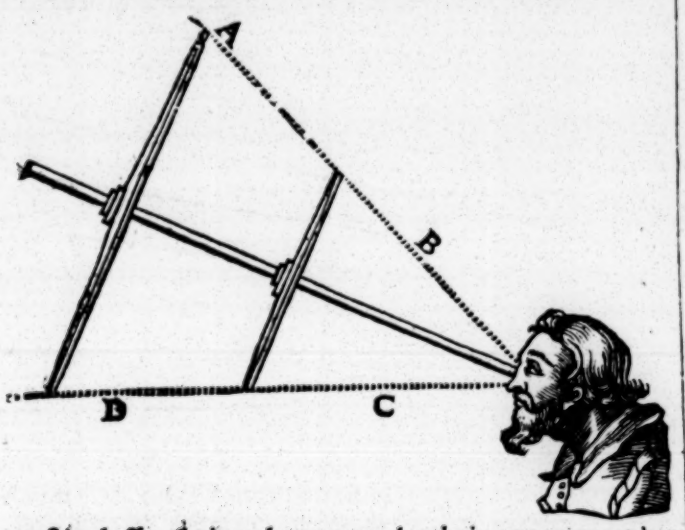
Make an even ſmooth board, and paſte good paper upon it, then draw a ſtrait line upon one edge or ſide thereof, as you ſee in this figure a line marked C A D, then marke another line as you ſee it marked B C, that B C A, bee a right and juſt halfe ſquare, then take a good paire of Compaſſes, and ſet one foot there of in the angle marked C, and compaſs there with as you ſee B E A, ſo that A E B may bee a right quadrant, or fourth part of a Circle, then devide it into two parts, to E, and then devide the other halfe (which is A E) into 90 parts, or degrees as thus: firſt devide it into 3 parts, and then devide each 3 parts again into 3. and then it wil be divided into 9 parts which done, devide each of them into two parts, and thoſe diviſions or parts divide into 5 parts, and then it will bee divided into 90 parts: then take a ſtraight line: and lay the one end thereof upon the Center C, and ſo forth upon every ſeveral point, which you have divided in the Quadrant, and then draw lines from the Center C through al the foreſaid points, as long as the board will containe them, as you may ſee in this figure: which done then your inſtrument is fully made and prepared to marke your ſtaves there upon. Which to doe, with your compaſſes take juſt the half length of your Croſſe, and ſet the one foot thereof in the Center, and put the other at F, and doe the like from D right to G, wich two points or pricks draw with a ſtraight line unto each other as you ſee in the line F and G, and then mark where the line F G is cut through by the lines that come out of the Center through the degrees or points of the quadrant: for thoſe cuttings through, ſhew upon the ſaid line the right marking of your Croſſe-ſtaffe: that is, you muſt marke your Staffe juſt as you ſee that theſe lines in F G are marked, by the lines that come out of the center and paſſe through it, whether the Croſſe bee long or ſhort, you muſt follow the ſame order that you are taught in the figure, the line H I is drawne for a ſhorter Croſſe then the former, and K L for one that is ſhorter then that, viz whoſe halfe is juſt ſo long as the Line C. K.

The ſecond manner of Framing your Croſſe-ſtaffe much excelleth the firſt in perfection and curioſity, ſo you divide it perfectly with your Compaſſes, which is done in this manner. U pon an hard even board which is paſted with paper draw a ſtraight line as long as your ſtaffe is, and with point compaſſe take the juſt halfe or the length of your Croſſe, whereunto you mean to mark your ſtaffe, and prick it many times along in the ſaid line as you can: & divide each af the ſaid lengths into 11000 equal parts, then look upon the table here after inſuing, which ſhewed you how many of thoſo points or parts you ſhall marke for each degree, and that you muſt doe in manner following, from the end of the ſtaffe, which you will make the eye end pricke juſt the halfe length of the Croſſe, and there make a Croſſe ſtroke, from whence prick for every degrees ſo many of the aforeſaid parts as the table enſuing ſheweth you. As for example, for the firſt degree prick 176 parts, for the ſecond 355 parts, for the third 538 parts, for the fourth 724 parts, and ſo forth: Remembring that you muſt prick all the lengths of pricks or parts aforeſaid, from the aforeſiad croſſe ſtroke, which is marked upon the halfe length of the Croſſe into 11000 parts, then devide the whole Croſſe ſo, and then take for every degree halfe ſo many as the Table ſheweth unto you. And if you cannot doe ſo, devide halfe the Croſſe into a 1000 parts, and then leave the hindermoſt letter of the table out, as where you ſhould for the firſt degree take an 176 parts, take but 17 parts, leaving the laſt figure out: but if your croſſes be ſo ſmall that you can devide the halfe of them into no ſmaller then an hundred parts, then leave out the two laſt figures in the table. But you muſt underſtand that the more parts that you devide the croſſes into, your markes will fall out ſo much the better & perfecter.

de.	parts.	de.	parts.	de.	parts.	de.	parts.	de.	parts.
1	176	19	4019	37	10057	55	21716	73	56612
2	355	20	4181	38	10503	56	22708	74	61154
3	538	21	4550	39	10965	57	23759	75	65958
4	724	22	4826	40	11445	58	24874	76	71445
5	613	23	5108	41	11943	59	26059	77	77769
6	1106	24	5399	42	12460	60	27321	78	85144
7	1303	25	5697	43	12998	61	28667	79	93854
8	1504	26	6003	44	13558	62	30108	80	104301
9	1708	27	6318	45	14142	63	31665	81	117062
10	1918	28	6643	46	14751	64	33315	82	133007
11	2131	29	6976	47	15386	65	35017	83	153469
12	2349	30	7320	48	16051	66	37046	84	110811
13	2572	31	7675	49	16746	67	39152	85	219038
14	2799	32	8040	50	17475	68	41445	86	276362
15	3032	33	8418	51	18239	69	43955	87	371885
16	3270	34	8807	52	19042	70	46713	88	561810
17	3514	35	9210	53	19887	71	49758	89	1135891
18	3764	36	9626	54	20777	72	53137	90	infinit.

The 24 Point. Of the cutting of the Croſſe-ſtaffe, and how a man may helpe and prevent all the defects of the ſtaffe.

THere being a Croſſe-ſtaffe well and exquiſitely framed, according to the doctrine of the former Chapter: it falleth out, that certaine ignorant perſens cutoff a peece from the eye end of the ſtaffe, about a degree or a degree and a halfe, or two degrees long, and can give no other reaſon of that their doing but that it muſt be ſo, and that they have experience that is ought ſo to be. But



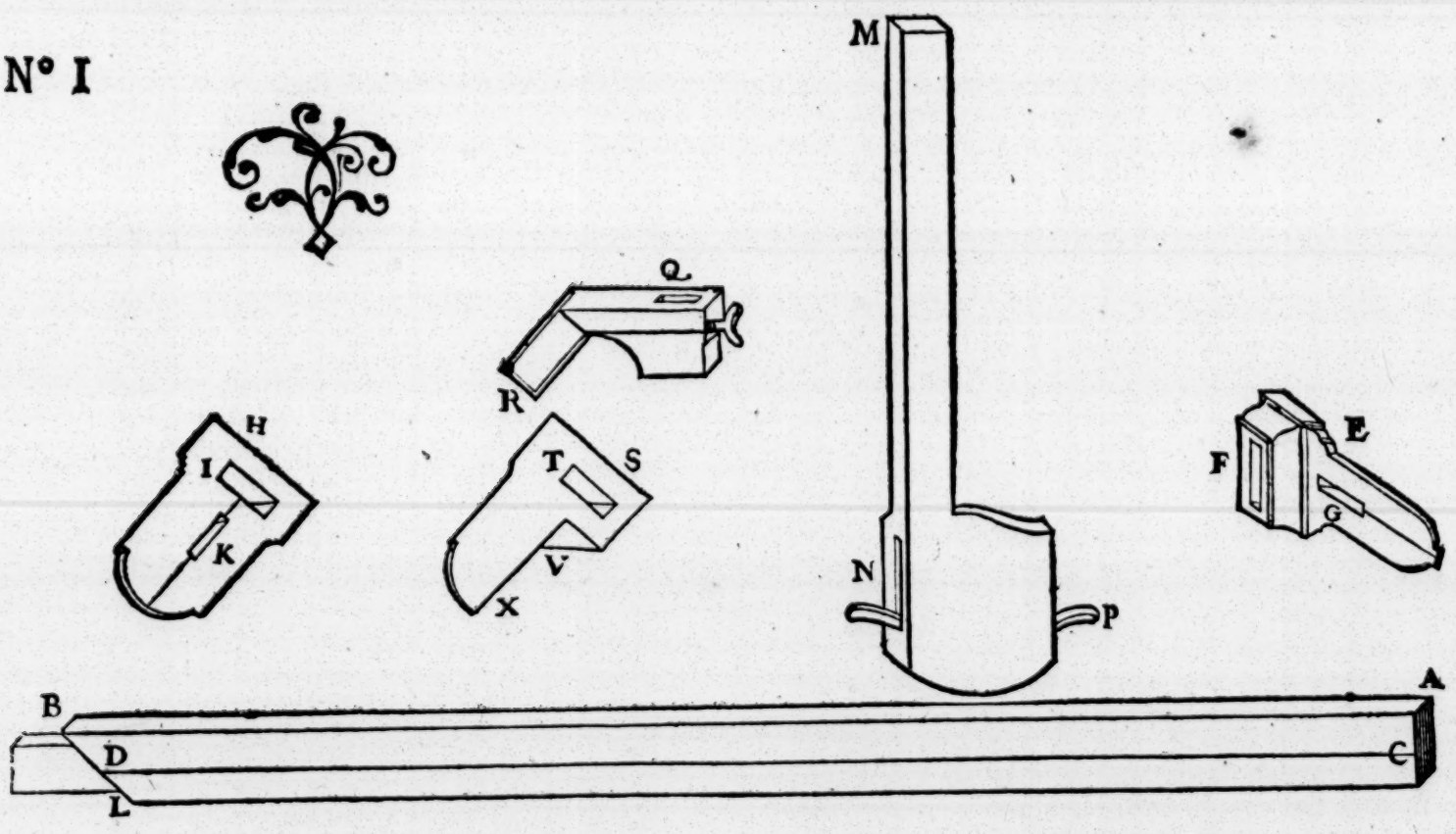
queſtionleſſe, ſeeing they prove by their experience that they doe not find their meaſuring with uncut ſtaves perfect & right as it ſhould bee, the falt thereof, is not in the Croſſe ſtaves uncut, but in themſelves, for that they know not how to uſe the ſtaffe aright, nor underſtand the true ground thereof. Others that wil ſeeme wiſer then the former, give a reaſon thereof: to wit, that the ſtaffe muſt be cut, becauſe of the hollowneſſe of the eye, for that otherwiſe the ſtaffe cannot come to ſtand, ſo that the end there of bee conioyned to the middle point or center of the eye or ſight, this reaſon hath ſome ſhow of truth, but notwith ſtanding is a like untrue and erroneous: for the ſtaffe may very wel bee ſet, either on the innermoſt or outermoſt corner of the eye, ſo that the ſight of the eye may fall to anſwer juſt to the end of the ſtaffe: that this is truth wee will prove with good reaſon as followeth.

Set the great Croſſe with the middlemoſt upon like degrees to wit, each upon ſuch as for that purpoſe are marked upon the ſtaffe: then apply the ſtaffe (the Croſſes ſo firmely remaining) unto your eye in ſuch manner (whether it bee on the innermoſt or outermoſt corner it is all one) as that you diſerne the ends of the Croſſes both above and beneath, juſt over each other, in forme as this figure ſpecifieth. If then you draw ſtrait lines by the ends of the Croſſes A B and D C they ſhall meet juſt in the middle point of our ſight. And in as much as the Croſſes are placed upon like degrees, the lines aforeſaid ſhall meet juſt upon the end of the ſtaffe, ſeeing that the end of the ſtaffe repreſenteth the center of the quadrant whereby your ſtaffe is marked.

So then the aforeſaid lines or ends of the Croſſes anſwer both juſt upon the end of the ſtaffe, & alſo upon the ſight, ſo that it followeth neceſſarily, and appeareth evidently: that the end of the ſtaffe and the ſight meet in one; or to ſpeake properly, both of them ſtand juſt in the center of the quadrant.

Therefore when ſoever with the Croſſe ſtaffe you will take the height of the Sun, or of any Star, then obſerve diligently how many degrees it is elevated above the Horizon: and place the two croſſes upon ſo many degrees: then apply the ſtaffe to your eye in ſuch manner as that you may ſee the ends of the Croſſes juſt over each other, according as is taught before: in ſuch forme then as you finde the ſtaffe to ſtand to your eye ſhall you place the ſtaffe (taking away one of the Croſſes) when you deſire to meaſure according to ſuch height: this is a ſure rule which will never fayle, neyther can you poſſibly miſſe if you follow it.

N° I

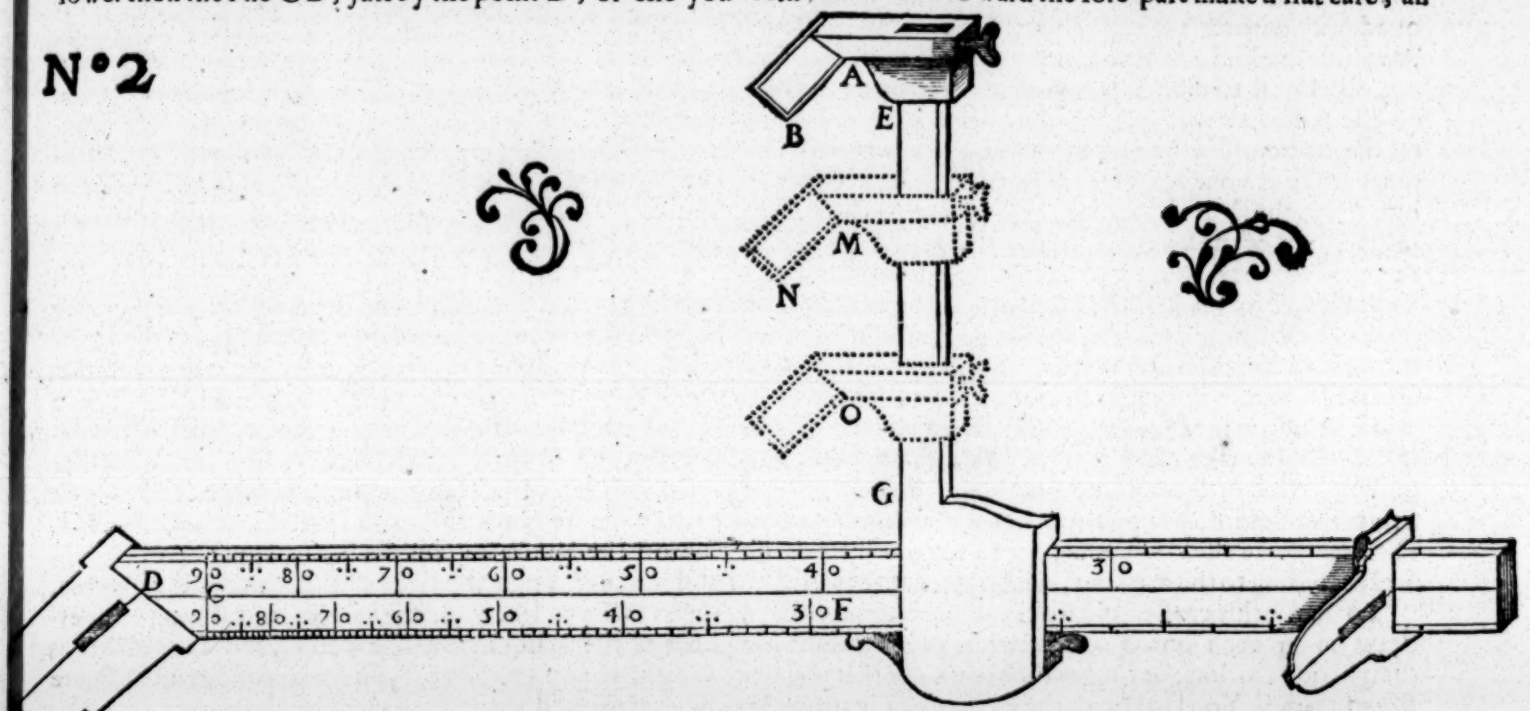


The 25 Point. How to finde the height of the ſun by the ſhaddow.

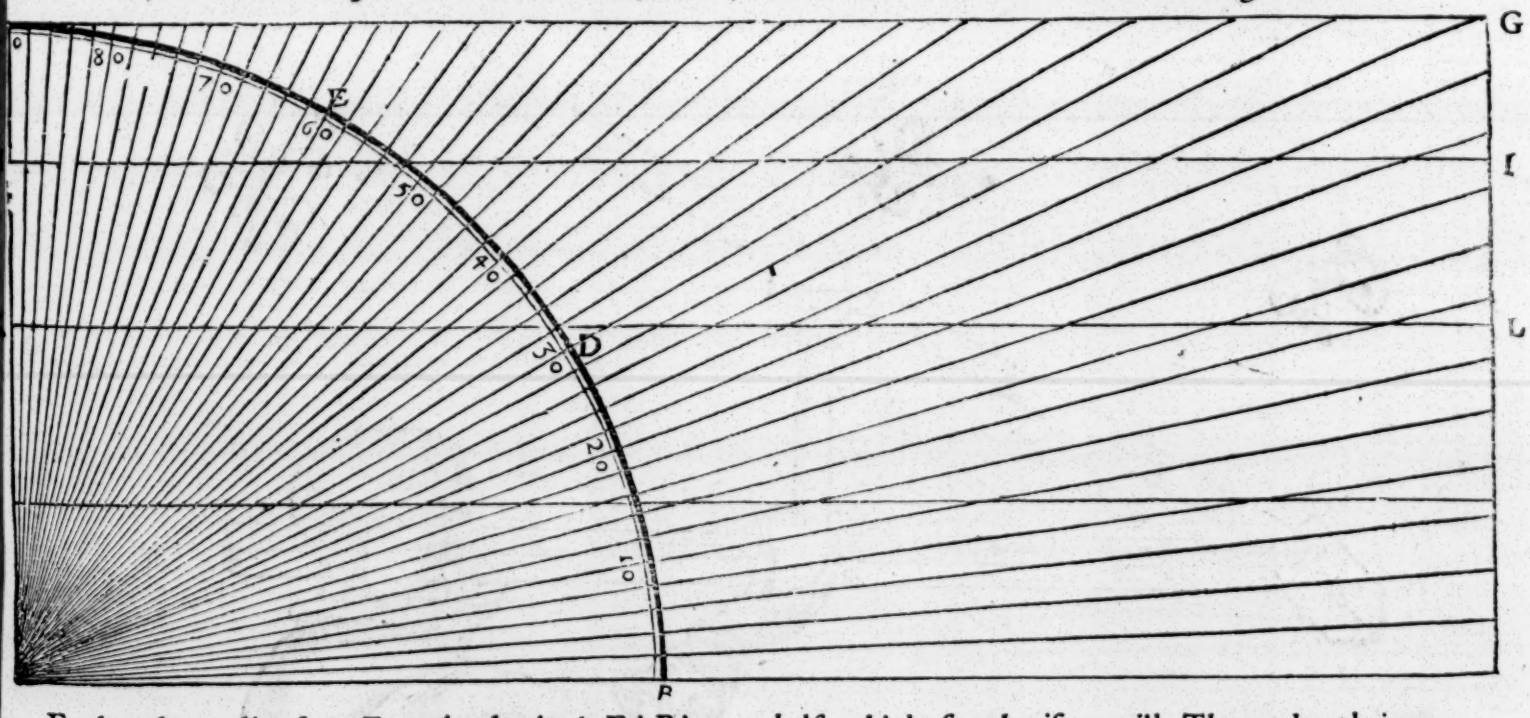
The common Croſſe ſtaffe is a very fit inſtrument to take the height at Sea, as well of the Sunne, as of other ſtars, but if the Sunne bee very high, wee cannot uſe it ſo commodiouſly, becauſe the eye can hardly indure the heath and brightneſſe of it. To avoid this, wee may very conveniently take the height of the Sun by the ſhaddow, in this manner: make a peece or ſtaffe 3 or foure feet long, very ſmooth, halfe a thumme thicke, broad two or 3 thummes, that is may remaine ſtraight, as you ſee in A B in the midſt of the broad ſide (juſt at the halfe betweene the upper and nether edge line, draw aright) C D, make

make a peece like E with a hole F, that it may be put into the peece A B and thruſt it to and fro, alſo thwart over let there be a ſmall hole for the eye like G, in ſuch ſort that when this ſliding peece is fitted to the other, the hole for the eye, may come to ſtand juſt by the middeſt of the line of the peece C D, neither higher nor lower. Make an other peece like H, and in the middeſt of the ſame alſoo a hole for the eye like K, and an hole thwart like I, that ſo it may be put on the end of the ſtaffe at B, in ſuch manner that it ſtand not right, but thwart or corner wiſe, as the line B D L ſheweth, and that the hole K, may ſtand like the other eye hole G, on the peece E, neither higher not lower then the line C D, juſt by the point D, or elſe you may in place of that eye hole, cut off the Croſſe of the lower edge to the line where the eye-hole ſtandeth, (as you may ſee in the Croſſe S) at the Line XV. make another Croſſe, a foot and a halfe or two foot long, in the forme of M N, with a hole at N, through which it being put into the foreſaid peece, that ſo you may ſlide it, to and againe, and that it may goe ſoftly and certaine on it, then make in the lower part of the hole a braſen ſcrue which may bee thruſt under againſt the peece and ſhuft it cloſe to O P. Laſt of all, make a ſmall Croſſe as Q, with an hole that it may be ſet on the long Croſſe M N and faſten it behinde with a ſcrue ſo high or low as uſe requireth, in the end to ward the fore part make a flat eare, an

N°2



inch, or an inch and a halfe broad like R S, neither right nor flat but thwartwiſe or cornerwiſe, ſo that when all theſe parts are joyned together as they ought, the flat of that eare, and that thwart flat of the ſliding-peece H, may allway remaine at like diſtance, that is, that they make equall angles, or that they both may ſtand the one and the other out of the ſquare againſt the peece A B, the parts thus prepared, and joyned to each other, the forme of this Inſtrument will be like the figure which is marked N. 2. now to marke this ſtaffe fit for uſe doe thus, make an even board about the breadth of the length of the long croſſe, and as long as the peece A B, paeſt on good paper, in the one corner, draw a ſtraight line like this figure the line A B C, take a paire of compaſſe and ſet the one foot in thee point A, and with the other make part of a circle, as wide as the board will permit, like B D E F; keepe thee compaſſe open, and ſet one foot in B, and the other in the circle drawne, as farre as it will reach, as in E, divide the circle B E into equall parts in D, thruſt the white B D, or D E, from E, forward alongſt the circle to

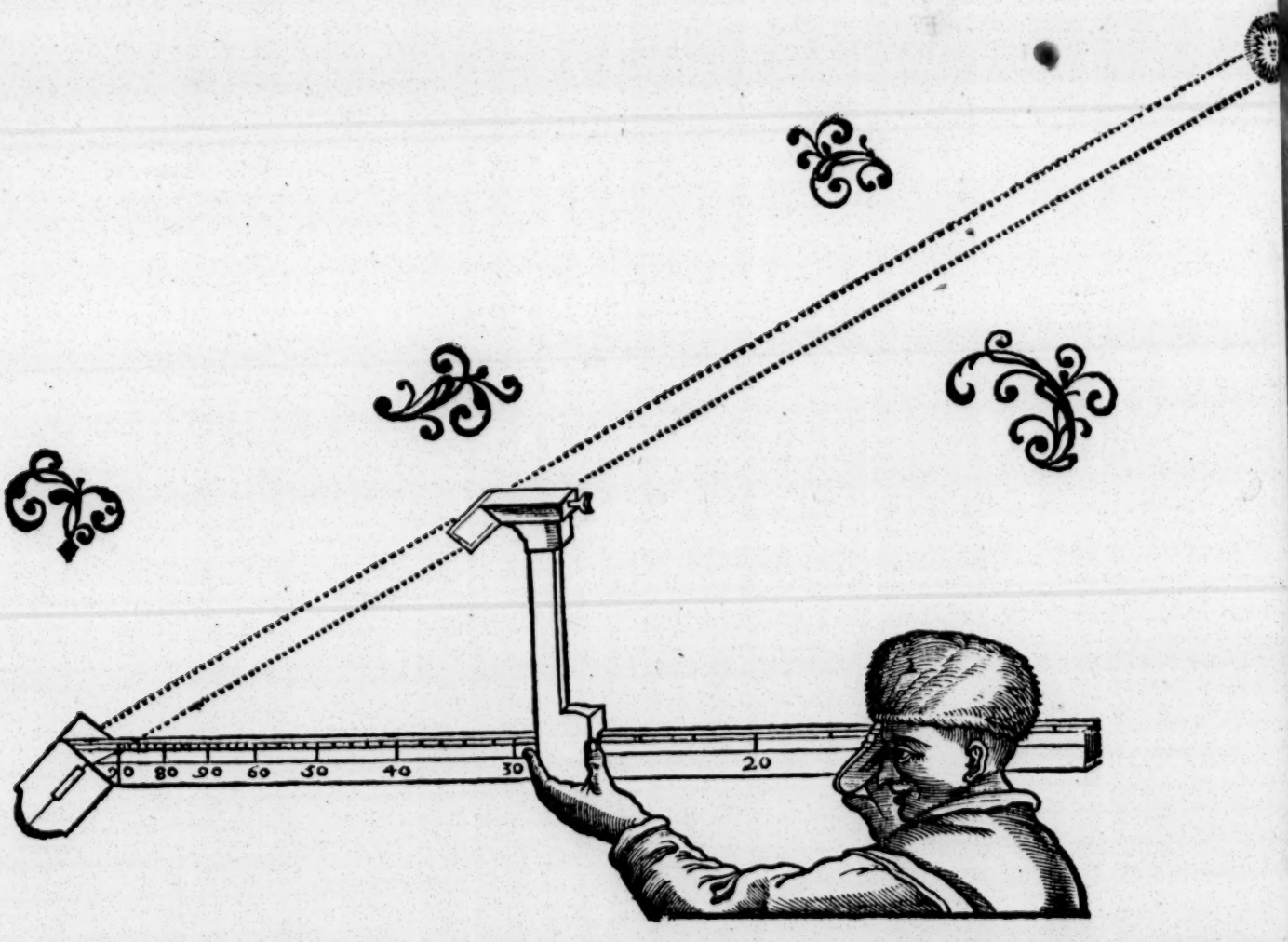


F, then draw a line from F, to A, the Angle F A B is a juſt triangle, and the bow B D E F is a juſt quadrant or fourth part of a circle, the parts B D, D E, E F, divide each in three parts, againe into five, ſoo ſhall the quadrant bee divided into 90 gr. You may divide into leſſe as halfes, thirds, fourths, if you will. The quadrant being thus divided, lay a ruler, on the end A, & the other end on the point of the other diviſions, & ſo draw lines from the point A, through al the other points, as long as they may ſtand on the board, as is to be ſeene in the figure above.

That being done: the prepararation is made; to marke the peece, take first the just wideneſſe with a paire of compaſſes, that is betweene E G, the foremoſt edge of the long croſſe, and A B the outermoſt edge of the eare, in the little croſſe, as in the figure N°. 2. and put that on the peece of the point D, on the left roundell inward toward C, on that point draw a thwart line, from thence you ſhall begin to marke, that the wideneſſe betweene the middle line of the ſtaffe, and the under edge of the eare, which is in the uppermoſt croſſe, as in the foreſaid figure N. 2. from F tot A, prickt that on the quadrant from A toward F in H, and from C to G in I, and draw the line H I. Then obſerve how all the lines comming from A the center of the quadrant, cutting through this line, even ſo muſt the peece bee marked beginning at the point C with 90, 80, 70, &c. But if ſo doing, you cannot get ſo many degrees on the ſtaffe, as you deſire to have (for your uſe) then ſet the little croſſe a third or fourth part lower toward the great croſſe at your pleaſere, ſo that the under edge of the eare A B in the figure N. 2. may come to ſtand at M N, then in the place of the length F A take F M; and thruſt it in the quadrant of A toward F into K, and from C unto L, and draw the line K L, that then will bee marked as it ought, by cutting the lines, comming from the center through the deviſion oft the quadrant, but you muſt take a certaine marke in the long croſſe, for to ſet the little croſſe in ſuch manner as you would uſe both marking. But if you would make more markes on the ſame peece, you muſt ſlide that little croſſe more netherward and then doe as was ſaid before, but you may not forget to make certaine markes in the long croſſe, for to ſet the little croſſe wel according to the marking, which you deſire to uſe.

To marke this croſſe ſtaffe from tables more perfectly, draw on an even board paſted with paper a right or ſtraight line, as long or longer then the ſtaffe that you deſire to marke. You ſhall with the compaſſe take the wideneſſe of the ſtaffe, between the middle line, and the nethermoſt edge of the eare at the little croſſe, at it is in the figure N°. 2. F A or F M, or alſo F O, what marking ſoever you deſire to follow ſet that wideneſſe naken as often alongſt that foreſaid line as you can, and each of theſe lengths you ſhall divide in 1000 parts, this table in this place ſhewes how many of theſe parts you ſhall appoint for a degree, or a fourth part of a degree, beginning, as is the figure a foreſaid N°. 2. from the point C. The firſt Columne of the table ſheweth the degrees, the ſecond the min. the third the parts, which you muſt take for the degrees, and mi for the firſt halfe degree or 30 min. 87 for a degree, 175. for 2 degr. 15 min. 593, but for 6 degr. 45 mi. 1184 parts; but if you cannot divide ſo ſmall a breadth as of F E, or F O, into 10000 parts, then you may divide it into halfe ſo many parts, and ſo you ſhall take ſo many parts for a degree, or part of a degree, if you cannot doe that, you ſhall devide it into 1000 parts, at every time, leaving out one letter in the table, as when you ſhould take for the firſt degree 175, take 17, and as neare as you can one halfe, for the 8 degrees in the place of 1405, take 140, and ſo forward.

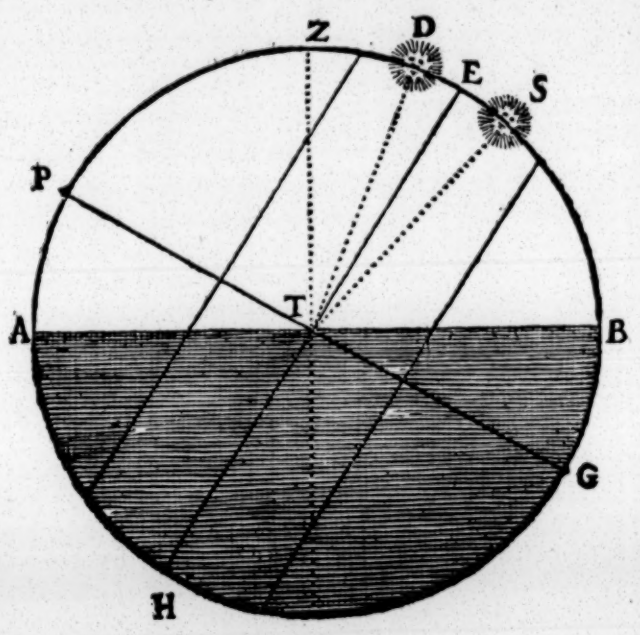
Laſtly, draw two parallel lines, on the leaſt roundell ſtanding on the outermoſt end of the ſtaffe, which may be perfectly ſeene, whereof the one muſt goe through the midſt of the eyhole as O P, the other ſo much higher that the breadth of the eare at the little roundell Q R if you make a good breadth betweene theſe two lines of like wideneſſe, it will be ſo much the more ſerviceable for uſe; this croſſe ſtaff being thus compleately made. The uſe of it to take the height is this: you ſhall ſet it with the back toward the Sunne (as you ſee in this figure here beneath) and looke through the ſight of the moveable runpeece, then ſhall you likewiſe ſee the Horizon through the eyhole of the leaſt unmoveable peece, and keepe that as ſtraight as you can, but if you uſe a croſſe as in the figure N°. 1. is marked with S. then you ſhall hold the lower edge V X right on the Horizon, as you doe in the common



croſſe ſtaffe. Then you ſhall ſlide with your hand the long croſſe to and fro upon the ſtaffe, until the ſhaddow of the eare at the uppermoſt little croſſe fall into the open field, on the leaſt unmoveable thin peece on the end of the ſtaffe, juſt between the two parallel lines above the ſight hole, to wit in ſuch manner; that you may at once ſee the Hori-

Horizon through bot the ſight holes, and the ſhaddow of the above-ſaid eare even above the two foreſaid parallel lines that being once obtained, the great croſſe will ſtand juſt by the degree of the true height of the Sunne, to wit, according to ſuch marking as the uppermoſt little croſſe (bein high or low) is ſet.

Having found the height of the Sunne, if the declination be northerly, you ſhall ſubſtract it from the height found, that is to ſay, if you are in the northſide of the Sunne, that is if the Sunne be ſoutherly, but if the declination be ſoutherly then you adde it to the height found, and ſo you ſhall finde the height of the Equinoctiall, which being taken from 90, you ſhall finde the height of the Pole, as by example: Let the Sunne, as in the figure here by ſtanding, bee clevated above the Horizon B D 70 degrees, the northerly declination E D 10 degrees; If you



take theſe from B D 70 degrees, there remaines 6 degrees, the height of the Equinoctiall, this being taken from B Z, or E G 90, there remaines E Z, or B G thirty, juſt at P A the corner of the Pole.

But if you marke this ſtaffe with the number inverted, ſo that in the place of 90 you ſet 0 for 80. 10. for 70. 20. and ſo forth, as the common croſſe ſtaffe is marked ordinarily, which you uſe toward the Sunne, you muſt then on the contrary uſe the northerly declination, and ſubſtract the ſoutherly and ſo at the firſt without further marking, you have the height as it is in the figure, if as in that which went before you to the height of the Sun being elevated D 70 gr. you ſhall in place 70 finde on the ſtaffe 20, that is not the height of the Sun from the Herizon B D, but the fulfilling of the height to 90 degrees as D Z, that is the diſtance of the Sun and Zenith, if then you joine to it the northerly declination D E 10 gr. that makes together E Z 30 degrees, the diſtance of the Equinoctiall and Zenith, and juſt at P A the elevation of the Pole. In the ſame manner if the Sun hath ſoutherly declination, and is riſen from the Horizon 50 gr. as in S you ſhall not find on the ſtaffe 50 gr. for B S, but 40 gr. for S Z the diſtance of the Sunne and the Zenith. Then if you take S E the ſoutherly declination from S Z 40, there remains E Z 30 degrees, for the diſtance of the Equinoctiall and the Zenith juſt at P A the height of the Pole.

That the unſliding peece ſhould be moveable by the ſight it is done for 2 cauſes; firſt that you may ſlide it netherward or outward as theſe and ſliding of the great croſſe requireth, ſecondly, that in foule weather when the waves goe high, you may ſet it inward (as occaſion ſhall require) for yout better meaſuring, for where the waves are high and trouble ſom long inſtruments are not ſo fir for uſe as ſhort. This foreſaid croſſe ſtaffe is very fit, to take the height certainely on the firm land, without the uſe of the Horiſon. That you may do this, you ſhall lay the ſtaffe on a table or any other flat place in a right line with the water the eye end directly to the ſouth, and with the other end, where the thwart ſliding peece ſtandeth to the north, on two ſmooth peeces of wood, ſo much lifted up that you may ſlide the long croſſe too and againe without hinderance, then when the Sunne comes directly ſouth, (that is, wen the Sunne hath equall ſhaddow on each ſide of the ſtaffe, then ſhall you ſlidi the longe croſſe too and fro, ſo long untill the ſhaddow of the eare at the little croſſe fall juſt betweene the two parallell lines on the thwart croſſe, that being done, you ſhall finde the height of the Sun in the ſtaffe at the long croſſe, which being found, you ſhall by that knouw the height of the Pole or the diſtance of the place where you take the height according to the inſtructions befoire laid downe.

Here

A short Instruction,

Here followeth the Table by which you muſt marke the foreſayd croſſe ſtaffe.

The firſt Columne sheweth the degrees, the ſecond the minutes, which are above the degrees, the third the number of prickes, points, or parts belonging to ſuch degrees and inutes.

gr.	mi.	parts.
0	0	0
	15	43
	30	87
	45	131
1	0	157
	15	218
	30	162
	45	306
2	0	349
	15	393
	30	437
	45	480
3	0	524
	15	568
	30	612
	45	655
4	0	699
	15	743
	30	787
	45	831
5	0	875
	15	919
	30	963
	45	1007
6	0	1051
	15	1095
	30	1139
	45	1184
7	0	1228
	15	1272
	30	1317
	45	1361
8	0	1405
	15	1450
	30	1495
	45	1539
9	0	1584
	15	1629
	30	1672
	45	1718
10	0	1763
	15	1808
	30	1853
	45	1899
11	0	1984
	15	1989
	30	2034
	45	2080
12	0	2126
	15	2171
	30	2227
	45	2263
13	0	2309
	15	2355
	30	2401
	45	2447
14	0	2493
	15	2540
	30	2506
	54	2632

gr.	mi.	parts.
15	0	2680
	15	2726
	30	2773
	45	2820
16	0	2867
	15	2915
	30	2962
	45	3010
17	0	3057
	15	3105
	30	3153
	45	3101
18	0	3250
	15	3297
	30	3346
	45	3394
19	0	3443
	15	3492
	30	3541
	45	3590
20	0	3640
	15	3689
	30	3739
	45	3789
21	0	3839
	15	3889
	30	3939
	45	3990
22	0	4040
	15	4001
	30	4091
	45	4193
23	0	4245
	15	4296
	30	4348
	45	4400
24	0	4452
	15	4505
	30	4557
	45	4620
25	0	4663
	15	4716
	30	4770
	45	4923
26	0	4877
	15	4931
	30	4986
	45	5040
27	0	4095
	15	5150
	30	5206
	45	5261
28	0	5317
	15	5373
	30	5429
	45	5486
29	0	5543
	15	5600
	30	5657
	45	5715

gr.	mi.	parts.
30	0	5773
	15	5832
	30	5890
	45	5949
31	0	6009
	15	6068
	30	6128
	45	6188
32	0	6249
	15	6310
	30	6371
	45	6432
33	0	6494
	15	6556
	30	6619
	45	6682
34	0	6745
	15	6809
	30	6873
	45	6937
35	0	7002
	15	7067
	30	7133
	45	7199
36	0	7265
	15	7332
	30	7400
	45	7467
37	0	7535
	15	7604
	30	7672
	45	7743
38	0	3815
	15	7883
	30	7954
	45	8026
39	0	8098
	15	8170
	30	8243
	45	8317
40	0	8391
	15	8466
	30	8541
	45	8617
41	0	8693
	15	8770
	30	8847
	45	8925
42	0	9004
	15	9083
	30	9163
	45	9244
43	0	9325
	15	9407
	30	9490
	45	9573
44	0	9657
	15	9742
	30	9827
	45	9913

gr.	mi.	parts.
45	0	10000
	15	10088
	30	10179
	45	10265
46	0	10355
	15	10446
	30	10538
	45	10630
47	0	10724
	15	10818
	30	10913
	45	11009
48	0	11106
	15	11204
	30	11303
	45	11403
49	0	11504
	15	11606
	30	11708
	45	11812
50	0	11917
	15	12024
	30	12131
	45	12239
51	0	12349
	15	12460
	30	12578
	45	12685
52	0	12799
	15	12915
	30	13032
	45	13151
53	0	13270
	15	13391
	30	13514
	45	13638
54	0	13764
	15	13891
	30	14020
	45	14155
55	0	14281
	15	14415
	30	14550
	45	14687
56	0	14826
	15	14966
	30	15108
	45	15252
57	0	15398
	15	15547
	30	15697
	45	15849
58	0	16003
	15	16160
	30	16318
	45	16480
59	0	16643
	15	16808
	30	16977
	45	17147

gr.	mi	parts.
60	0	17320
	15	17496
	30	17675
	45	17856
61	0	18040
	15	18227
	30	18418
	45	18611
62	0	18807
	15	19007
	30	19210
	45	19416
63	0	19626
	15	19840
	30	20057
	45	20278
64	0	20503
	15	20732
	30	20965
	45	21203
65	0	21445
	15	21692
	30	21943
	45	22199
66	0	22460
	15	22727
	30	22998
	45	23275
67	0	23548
	15	23847
	30	24442
	45	24343
68	0	24751
	15	25065
	30	25386
	45	25715
69	0	26051
	15	26394
	30	26746
	45	27106
70	0	27475
	15	27852
	30	28239
	45	28635
71	0	29042
	15	29459
	30	29887
	45	30326
72	0	30777
	15	31240
	30	31716
	45	32205
73	0	32708
	15	33226
	30	33759
	45	34308
74	0	34874
	15	35457
	30	36059
	45	36608

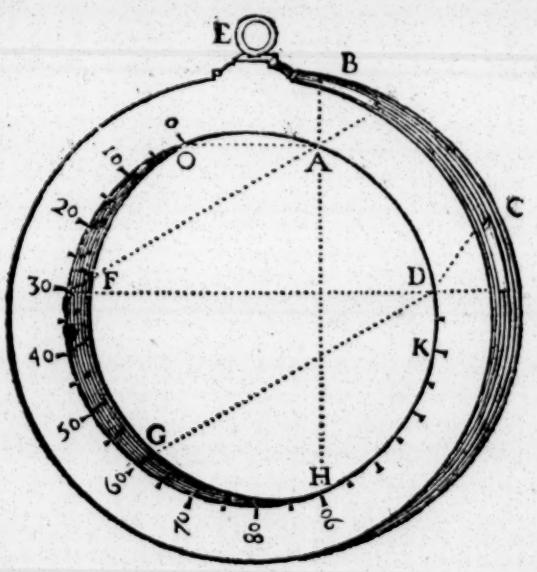
gr.	mi	patts.
75	0	37320
	15	37983
	30	38667
	45	39375
76	0	40103
	15	40866
	30	41653
	45	42468
77	0	43315
	15	44194
	30	45107
	45	46057
78	0	47036
	35	48087
	0	49152
	45	50273
79	0	51445
	15	52671
	30	53955
	45	55300
80	0	56713
	15	58196
	30	59757
	45	61402
81	0	63137
	15	64971
	30	66911
	45	68969
82	0	71154
	15	73478
	30	75955
	45	78606
83	0	81443
	15	84489
	30	87769
	45	91309
84	0	95144
	15	99310
	30	103854
	45	108829
85	0	114300
	15	120246
	30	127062
	45	134766
86	0	143006
	15	152570
	30	163498
	45	176105
87	0	190811
	15	208188
	30	229038
	45	254518
88	0	286362
	15	327302
	30	381885
	45	458293
89	0	572900
	15	763900
	30	1145888
	45	2291818

The 26 Point. Concerning the uſe of the ſearing.

THe Aſtrolabiums which men now adayes commonly uſe at Sea, I meane that with a Dioptra, upon which ſtand two penullen, & are not verry ſerviceable by reaſon of the continuall motions of the ſhips to bee uſed at ſea un leſſe the penullen upon the Dioptra are placed neere by one another, for then the Shipmaiſtres ſome times uſe the Aſtrolabium in the meaſuring of the Sunne. Nevertheleſſe the Aſtrolabium can have no ſuch perfection in it, for the Dioptra in the ſaid Aſtrolabiums are placed almoſt 2 or 3 inches at moſt the one from the other, and if ſo bee, in a little time, a ſmall fault or miſtake happen in the obſervation of the ſhaddows even as through motion of the ſhipp it may eaſily happen, ſoo alſo muſt the Dioptra upon the degrees of the Limbus make a greater miſtake and fault.

Therefore have I here ſet downe this figured and drawne Ring which you may let be made ready or prepared by Meſſig about one foote or a foote & halfe wide and 2 or 3 inches broad. For in the uſe of it you have no neede of a Dioptra but you let the Sunne ſhine through the little holes becauſe the ſhaddow may the more perfectly and narrowly bee obſerved ſo; then let the ring bee covered on both ſides onely that there may bee ſome opening left that ſo the degrees which ſtand marked on the inſide may bee fitly ſeene and uſed.

Theſe degrees fall once more wider one from the other then in the Limbus of the Aſtrolabium, becauſe in this the ſhadow falleth out of the circumference, our out of the ſides and not (as it is in the Aſtrolabium) out of the Center, and therefore is the whole circumference of the Ring according to the Art of Geometry devided into 180 degrees, whereas on the contrary in the Aſtrolabium the Limbus or round ring encompaſſing it containeth 360 degrees.



The beginning of the degrees beginneth by the letter O, right even againſt the little hole over that which is placed next by the handel: there are 2 little holes or chinkes made in the Ring through which you let the ſhaddow fall, the one ſtands by the letter B, placed about 10 degr. from the pendel E, by which the ringhs hung. The other little hole C ſtands juſt 30 degrees diſtant from the little hole B becauſe: whed the Sunne is not verry high above the Horiſon, then we receive the ſhaddow through the little hole C, and then wee begin to count the degrees not farre from the letter O, as beforeſaid, but from the letter F, ſtanding right juſt over againſt C juſt 30 degrees diſtant from O.

This ring being thus made I ſhould thinke it moſt fitting to ſignify the height of the Sunne, notwithſtanding the Shipmaiſtres now adayes uſe the degree-bow, which nevertheleſſe are greately ſubject to faults and miſtakes.

The 27. Point. Of the breadth of the Lands.

THe breadth of Lands or Countries is no other, then the diſtance or wideneſſe that is betweene the ſaid Lands and the Equinoctiall Line, which is reckoned in a double manner, that is northerly and ſoutherly, to the number of 90. Such Lands of Countries as lye right under the Equinoctiall Line have no breadth: but ſuch as lye northward from it, have northerly breadth, and they that lye ſoutherly have ſoutherly breadth.

Example.

The Iland of S. Thomas, in the River Gaban in Guiena lyeth right under the Line, and therefore hath no breadth neither northerly nor ſoutherly.

The Cape S. Vincent in Spaine lyeth northward from the Line 37 degrees, and therefore the northern breadth of Cape S. Vincent is 37 degrees.

The point of Lizart in England lyeth northward from the Line 50 degrees, therefore the north breadth of Lizart is 50 degrees.

The Cape de Bona Eſperance lyeth ſouthward from the Line 34 degrees and a halfe, therefore the ſoutherly breadth of Cape de Bona Eſperance is 34 degrees and a halfe. In like manner you muſt underſtand and reckon their Lands, Countries and Townes.

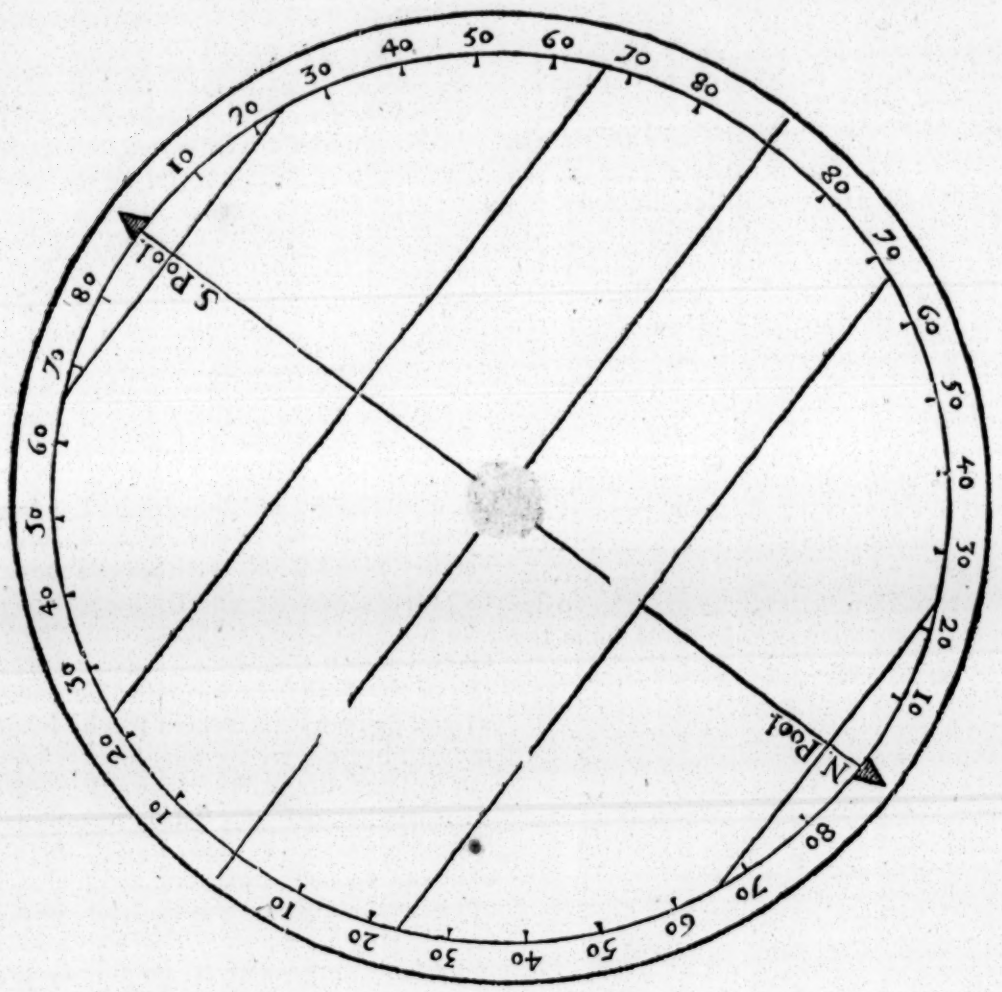
The 28 Point. Of the height of Lands and Countries, and what it is.

THE height and breadth of Lands and Countreyes although that in themſelves they are divers things, yet they are all wayes one like unto the other. Any Countrey being ſcituated under the breadth of 30 degrees, lyeth alſo in the height 30 degrees, which by Sea-faring men is taken without difference, but what is, or what it hath in it or ſignifieth few men underſtand, and yet it behoveth a ſeafaring man, that ſeeketh for the height of any Countries, to bee expert therein, for that no man without it can wel underſtand how many inſtruments (whether it be Aſtrolabium, or Croſſe ſtaffe, no nor the Sea-compaſſe it ſelfe) ſhould well be uſed: for that theſe things are are all built upon one foundation, and like a chaine hang one upon the other. But it may be that ſome man will object & ſay, that there are many Pilots which doe not well underſtand ſuch things and yet are able to goe directly unto divers places, whether they deſire to ſayle: which I confeſſe to be true: but tell me how many times are they deceived? How many times are they in great doubt & feare? and how ſeldome dare they truſt into the height which they have taken or reckoned when they are to ſeeke out any Country thereby? how oftentimes hath is heretofore happened, that for want of ſuch knowledge, ſhippes have ſayled out of their way either, behinde England, or upon France, which thought to paſſe through the channell between England and France, and that in ſo ſhort and well knowne, and common ſayled water, as to come out of Spaine or France? what would ſuch men doe, if they ſhould paſſe the Line, and were to ſeeke or finde out certaine Ilands? Or that after they had ſayled up and downe the Seas certaine moneth together, ſhould then ſeeke out for Land? but I am of this opinion which I know every man will grant that it is much better and more aſſured to goe away being guided by his owne eye-ſight, then like a blinde man to bee led by another, and knoweth not whether that other ſeet well or not: but to come againe to our matter, touching the height of Countries, it is no other but the height of the Pole above the Horizon, that is to ſay, ſo many degrees as the Pole in any Land is lifted up above the Horizon, ſo much is the height of ſuch a Country: & this height agreeth allwayes with the breadth as aforeſaid. In the 10 chapter it is ſhewed, that whereſoever a man goeth or turneth, alwayes the one halfe of the heavens ſheweth it ſelfe above the Horizon and the other halfe is hidden from us: in the firſt chapter it is ſaid

hat

that the two Poles ſtand right one againſt the other, whereby it is evidently to be underſtood, that whenſoever a man being upon the earth is right under the Equinoctiall line, what then both the Poles of the World, lye right in the Horizon, one in the ſouth, and the other in the north: and as much as a man travaileth northward from the Equinoctiall line, and winneth breadth northerly, ſo much the north Pole riſeth above the Horizon: and the ſouth Pole contrarywiſe goeth ſo much under: and on the contrary, as many degrees as a man goeth from the Equinoctiall line ſouthward, and winneth breadth ſouthward, ſo much the ſouth Pole riſeth above the Horizon, and the north Pole goeth ſo much under: which may eaſily be under ſtood by the figure here after following.

In this figure the innermoſt roundel that turneth about, ſignifieth the Heaven, N the north Pole, S the ſouth Pole, Æ the Equinoctiall, the uppermoſt edge of the halfe moveable roundell, ſignifieth the Horizon, the one halfe off the Heavens is above it, and the other halfe juſt under it, the round ball in the middle ſignifieth the earth, where in you ſee a little man, that may be turned upon the earth ſouthward and northward.



Now perfectly to marke and perceive that which is before written, that is to know what height is, and that it alwayes agreeth with breadth, bring the little man upon the Earth Globe right under the Equinoctiall, that is to ſay that it have no breadth, neither northward nor ſouthward, then you ſhall ſee that both the Poles lye juſt with the Horizon, and that nether of them both are elevated above it, nor depreſſed under it, and with all, you ſhall ſee that they that dwell under the Equinoctiall have no height or elevation of the Pole, not yet any breadth. But if you remove the man ſo much northward that hee goeth tenne degrees upon the earth, that is, that hee commeth tenne degrees upon the north breadth, you ſhall ſee that the north Pole ſhall bee rayſed or elevated tenne degrees above the Horizon in the north, and the ſouth Pole ſhall goe ten degrees under the Horizon: and if you remove the man upon the earth more northerly, as thirty, forty, or fifty degrees, the north Pole will alſo be ſo much elevated, and the ſouth Pole to the contrary ſo much depreſſed under the Horizon: ſo that if you turne the man upon the earth to ninety degrees, then the north Pole alſo will bee elevated ninety degrees, that is the Pole will ſtand right above his head, and the Equinoctiall will joyne with the Horizon in one circle: that which thus is ſaid of the elevating of the north Pole, is alſo in the ſame manner to be underſtood of the ſouth Pole: for of you likewiſe move the man upon the earth in the figure toward te ſouth, the ſouth Pole will be elevated above the Horizon, as much as the man in breadth goeth ſoutward, and the north Pole will goe ſo much under the Horizon.

One things is herein to be noted, that as much as the Pole riſeth above the Horizon juſt ſo much the Equinoctiall goeth under it, and when the Pole goeth under, the Equinoctiall riſeth againe in equall proportion.

But above all you muſt marke, that the number of the Poles elevation added to the height of the Equinoctiall alwayes make even ninety degrees, ſo that when the Pole is elevated 30 degrees in the north, the Equinoctiall is elevated ſixty degrees in the ſouth: but if the ſouth Pole bee elevated above your Horizon twenty degrees, the Equinoctiall will bee elevated in the north ſeventy degrees, which is clearly underſtood and ſhewed in this manner: we alwayes ſee halfe the Heavens above the Horizon, (as aforeſaid) which is twice ninety degrees, from the ſouth to the Zenith or the point juſt over our heads, and from the Zenith to the Horizon in the north. Now ſeeing that betweene the Equinoctiall and the Pole there are alwayes ninety degrees, as is ſhewed in the ſecond chapter) it followeth that which is beneath the Pole and the Equinoctiall, maketh alſo ninety degrees: therefore when we know the height of the Equinoctiall, and take it out of ninety, that which reſteth over is alwayes the height

height of the Pole, this al ſo may bee ſeene in the figure aforeſayd.

The 29 *Point.* Concerning the difference and agreement of the Declination in divers places of the earth.

THeſe Tables of the Suns declination are reckoned upon the Meridian or length of the earth from the weſtend of England. Thoſe which are more eaſterly from thence, have the leſſer declination, when the Sun departeth from the Line, and increaſeth in declination either towards the North or South as wel betweene the 20 of March, and the 22 of June, as betweene the 23 of September, and the Sun teturneth againe towards the Line, tion, when the Sun returneth againe towards the Line, whether it bee by north of by ſouth the Line as well betweene the 22 of December, and the 20 of March, as betweene the 22 of June, and the 23 of December.

On the contrary, thoſe which are more weſterly from thence, have the waxing declination (that is when the Sun runneth from the Line either by North or by South the Line, the greater declination and the falling declination) that is when the Sunne runneth againe towards the Line, either by North or by South the Line, maketh the leſſe. That commeth to paſſe by reaſon of time, thus. Thoſe which are more eaſterly have the Sunne ſoo ner in the ſouth or in their Meridian, and therefore is the waxing declination leſſe, and the falling greater, on the contrary thoſe which are more weſterly have the Sunne later in the South, and therefore have they the increaſing declination more, the decreaſing leſſe.

The firſt Example.

Concerning thoſe which are more eaſterly with riſing declination upon the 25 of March in the ſecond yeare following the Leap-yeare I deſire to know the Sunne declination at noone at Bantam in the Eaſt-Iudies. Firſt I ſeeke upon a Globe or any other Table, how much more Eaſterly Bantam lyeth then the Lands end of England, and I find it to bee about 120 degrees (herein wee reckon not ſo neare upon a degree or two, becauſe ſuch a difference is but little in this reſpect) whilſt then the Sunne muſt have 24 houres to run about the Heaven or the whole earth which is 360 degrees, I ſeeke how much time hee muſt have to run 120 degrees, and I ſay thus: 360 degrees make 24 houres, what maketh then 120, facit 8 houres, from thence I find that the Sunne commeth 8 houres ſooner to the South at Bantam then at the Lands end of England, that is: That the Sunne is fall South at Bantam, when it is but 4 a clock after midnight at Englands Lands end. Then I looke in theſe Tables upon the above written 25 of March for the declination of the Sun, and I find it to bee 1 degree 57 minutes, and (out of the declination on the day following 2 degrees 21 minutes) that the declination of the Sun at that time in 24 houres increaſeth 24 minutes, therefore ſay I: if the declination increaſe 24 minutes in 24 houres how much in 8 houres? facit 8 minutes, from thence it is cleare that ſeeing the Sun runneth from the Meridian over Bantam to the Meridian of Englands end, and the declination riſeth or increaſeth 8 minutes, that it at Bantam is 8 minutes leſſe as theſe Tables declare. The Suns declination is that day at Bantam no more then 1 degree and 49 minutes by north the Line.

The ſecond Example.

With falling Declination.

Upon the 16 of the ſame yeare I deſire to know the Suns declination at noone at Bantam, and I find in theſe Tables upon that day for the length of England Lands end 2 degrees 40 minutes, that it decreaſeth every day at that time of the yeare 24 minutes. Seeing then the Sun (as is ſayd in the firſt example) cometh 8 houres ſooner to the South at Bantam then at Englands end, I ſay doth the declination decreaſe 24 minutes in 24 houres, how much maketh it in 8 houres? it maketh 8 minutes from thence it is knowne, that ſeeing the Sunne runneth from the Meridian of Bantam to that of Englands End, and the declination falleth 8 minutes, and therefore at Bantam is it 8 minutes more, even as theſe Tables declare. The declination of the Sunne on that day is at Bantam 2 degrees and 48 minutes.

Obſervation.

From hence it followeth: That one and the ſame Steerman (ſayling eaſtwards to the Indies) comming upon two ſuch divers times before the Straite of Sunda, and would take the height of the Pole according to the Sun of one and the ſame corner of Land, and ſhould uſe theſe Tables without ſuch caution, hee ſhould (though hee though it wel done) thereby (taking one time 8 minutes ſoo much and the ether time 8 minutes too little declination) hee ſhould find it to differ 16 minutes in his height, therefore in long voyages you muſt thinke wel upon this.

The third Example. Concerning thoſe which are more Weſterly with riſing declination.

A certaine Ship comming upon the 9 of October in the third yeare after Leap-yeare upon the greate South Sea, neare the Coaſt of Peru, the Steerman deſireth to know the Suns declination theere at noone, hee findeth (out of a Globe or any other Table) that that Coaſt lyeth full 80 degrees more weſterly then Englands Lands End. The Sun muſt then run from the South over Englands end to the South of the foreſaid Coaſt of Peru ful 80 degrees, to whigh hee requireth about 5 houres and an halfe, ſo that when the Sun ſtandeth there in the South, it is then from Englands end halfe an houre paſt 5 in the afternone. Hee findeth in theſe Tables the declination of that day 6 degrees 13 minutes by South the Line, and (out of that of the following day which is 6 degrees 36 mimutes) that at that time in 24 houres the declination riſeth 23 min.) therefore ſhall hee ſay: the declination riſeth in 24 houres 33 minutes, hou much then in 5 houres and de½? a facit full 5 minutes, and from thence wee find, that ſeeing the Sun running from the Meridian of England, end to hert of the Coaſt of Peru riſeth full 5 minutes, and thereupon the declination on that day is there 5 minutes more even as the tables demonſtrate. The declination then on that day on the Coaſt of Peru is 6 degrees 18 minutes.

The firſt Example. Concerning the falling declination.

Suppoſe that ſuch commeth to paſſe on the foreſaid Coaſt of Peru on the 8 of September the ſame yeare; theſe tables point at the declination of that day 5 degrees 46 minutes, and the day fallowing 5 degrees 23 minutes, ſo as upon that time of the yeare in 24 houres time the declination leſſeneth 23 minutes. The Steerman ſhal then reckon thus, if in 24 houres the declination leſſeneth 23 minutes, how much is that in 5 houres and a halfe, facit full 5 minutes, and ſhall from thence find that his declination is there 5 minutes leſſe, as theſe Tables inſtruct, the Sunnes declination then upon that day is upon the Coaſt of Peru 5 degrees 42 minutes, from hence may bee underſtood, what it is which before is ſaid in the example of the more eaſterly, that a Steereman whe would looke after the Sun on the Coaſt of Peru upon ſuch two divers times in the ſame place, and would uſe theſe Tables of declination without the foreſaid care and caution, though hee ſayle right and well ſhould nevertheleſſe find 16 minutes difference.

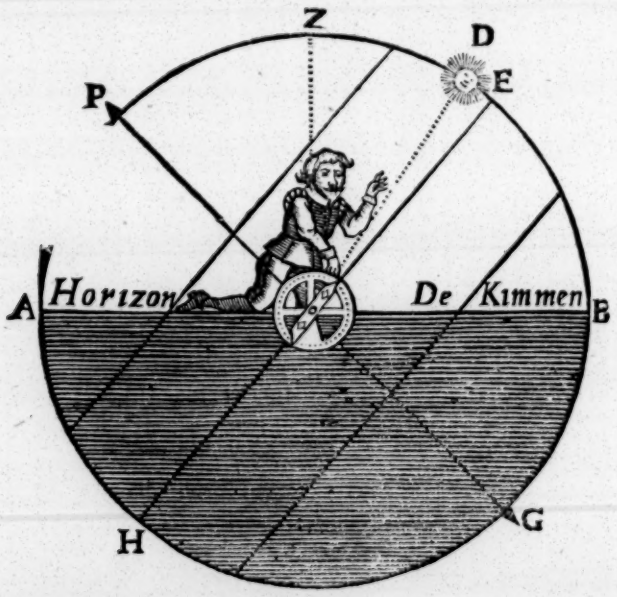
The fifth Example.

Suppoſe 2 Ships beeing together depart from theſe Lands, the one ſayleth eaſtwards, and commeth according to his reckoning upon the 26 of September in the firſt yeare following the Leap-yeare, on the other ſide of the world, I ſuppoſe 180 degrees, in longitude diſtant from Englands end, and find in theſe Tables the declination of

the Sun on that day 2 derees 0 minutes. The other ſhip ſayleth weſtwards, and meeteth the firſt ſhipp at the foreſaid place according to this reckoning not upon the 26 of September but upon the 25, and findeth the declination in theſe Tables for that day 1 degree 24 minutes, and ſo differ as well in the time one day, and accordingly in the declination 24 minut. whith commeth to paſſe from this, the firſt ſailed towarde the Sunriſing 180 degrees, hath ſhortened his time 12 houres. The other ſailed with the Sunne 180 degrees, hath lengthened his time 12 houres, & thereby hath had one night leſſe then the other whilſt then the declination at that time increaſeth in one day 24 minutes, ſoo muſt hee that is ſayled eaſt wards reckon 12 minutes declination leſſe, and hee that is ſayled weſtwards muſt reckon 12 minutes more, as the Tables each and ſhall have one ſort of declination, to wit 1 deg. 12. m. haved.

The 30 *Point.* How to finde the height of the Pole. by the Sunne.

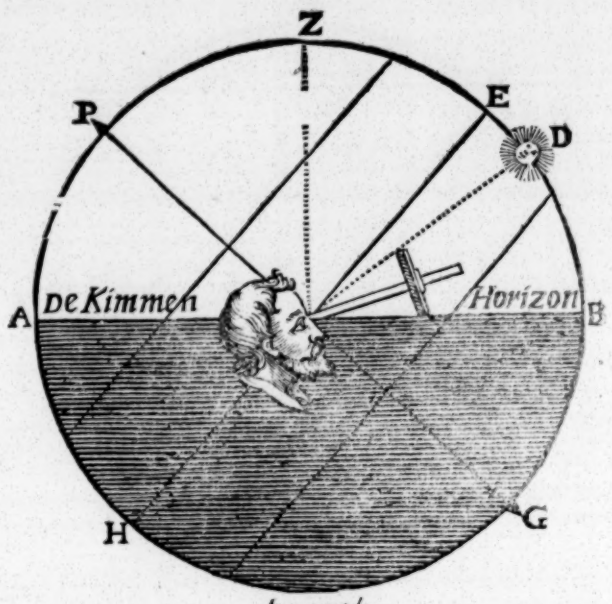
TO find the height of the Pole by the Sunne, one thing is ſpecially to bee marked, to wit, whether you are northward or ſouthward from the Sunne, whether the Sunne ſtandeth northward or ſouthward from you is eaſily knowne, when you are in ſuch a place upon the earth as is farre from the Line, or from the Sunne, but when the Sunne is neare almoſt above your head, then you cannot wel ſee it with your eye, therefoore ſet a compaſſe before you that you may ſee where north and ſouth is, then take your Aſtrolabium, and ſet it ſo that the one edge there of ſtand right ſouth, and the other north, and then you ſhall ſee at a hayres breadth, whether the Sunne being at the height, ſtandeth northward or ſouthward from the head point or Zenith: if then you will ſeeke the height of the Pole, when you are on the north ſide of the Sunne, that is, when the Sunne is Southward from you, then take the juſt height firſt, and as much as the declination of the Sunne is northward, take it out of your height and that which reſteth is the height of the Equinoctiall in the ſouth, which ſubſtracted out of ninety (as in the former Point is declared) then you have the height of the north Pole.



Example.

In this figure ler P be the north Pole, and G the South Pole, E H the Equinoctiall, A B the Horizon, Z the Zenith, and D the Sun: let the height of the Sun B D bee ſixty degrees above the Horizon: the northerly declination D E 8 degrees: if then you take D E 8 degrees from B D the height of the Sunne, there will reſt B E 52 degrees, which is the height of the Equinoctiall, which taken out of 90 degrees, reſteth 38 degrees, for the height of the north Pole A P, as in the 7 point is ſhewed.

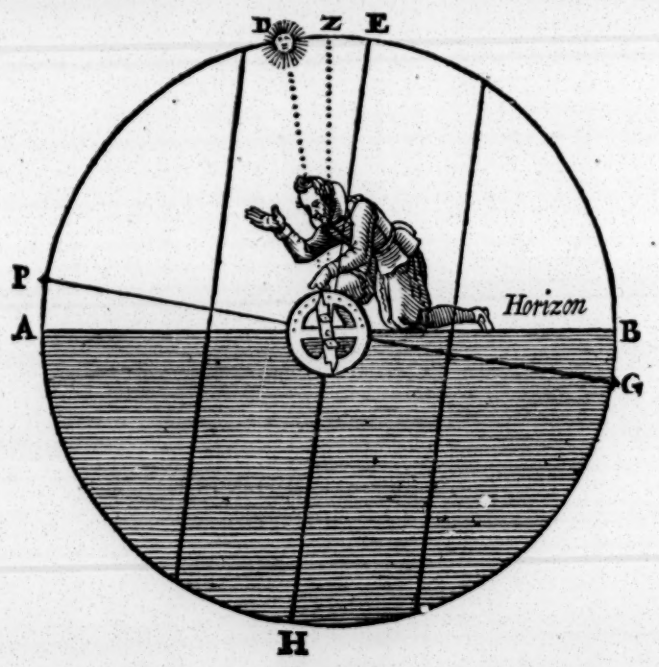
If the declination be Southerly, then adde unto the height aforeſaid taken: and then if the addition bee leſſe then 90, then looke upon the height of the Line in the ſouth which taken out of 90, as aforeſaid, it leaveth you the height of the North Pole.



Example.

Let the height of the Sun be D B 40 degrees, the ſoutherly declination of the Sun E D 20 degrees, then adde E D 20 degrees, to D B 40 degrees, it maketh E B 60 degrees the height of the Equinoctiall which ſubſtracted from 90, as E G the diſtance betweene the Equinoctiall and the ſouth Pole; then there will reſt 30 for G B, that is, as much as the ſouth Pole is gone under the Horizon: as before is ſhewed, ſo much as the one Pole is under the Horizon, juſt ſo much as the other above it, the north Pole P ſhall here be elevated thirty degrees.

But if the height of the Sunne being added unto the declination maketh more then 90 degrees, then you muſt underſtand, that the Equinoctiall is northward from your head juſt ſo much as the aforeſaid addition is more then 90 and ſo conſequently the South Pole alſo ſhall bee ſo much elevated.



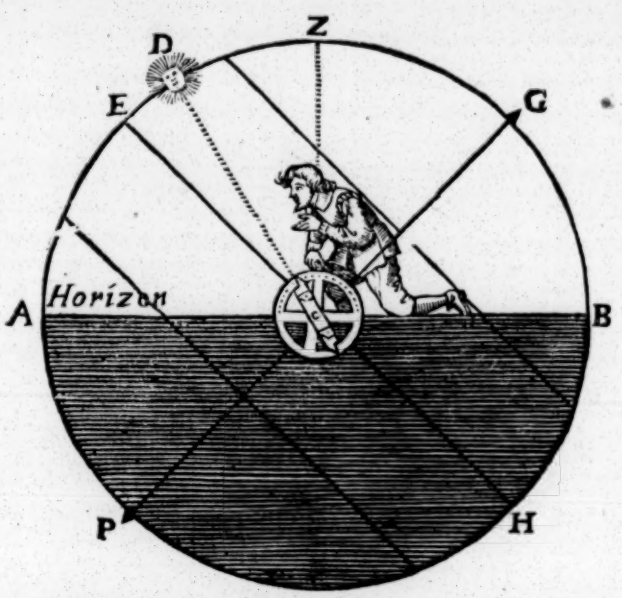
Example.

Looke into the figure next following, wherein let the height be D B 80 degrees, and the ſoutherly declination E D 18 degrees, then if you adde E D 18 degrees to B D 80 degrees, the height of the Sun there will bee 98 degrees, for B E, ſeeing then that from the Horizon B, to the Zenith Z (that is the poynt in Heaven right above our heads) is juſt 90 degr. as in the 22 poynt is taught) it followeth that E the Equinoctiall is 8 degrees northwards from the Zenith Z, and ſo 82 degr. elevated in the north, above the Horizon: when E A is taken out of 90 there reſteth 8 degrees for the height of the ſouth Pole, G above the Horizon B, then you muſt underſtand, that you are betweene the Line and the Sunne.

How

How you shall finde te height of the Pole, when you are southward from the Sunne

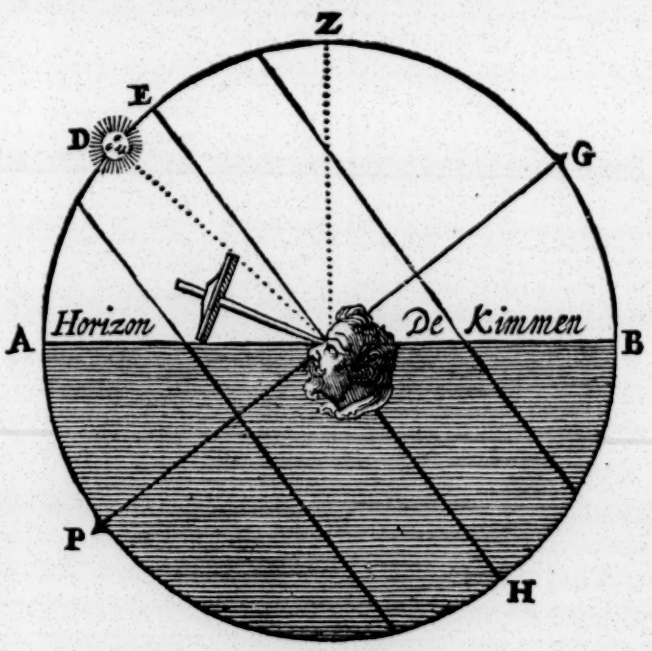
WHen you perceive that you are southward from the Sunne, that is when the Sunne standeth northward from you, first (as aforesaid) take the height of the Sun: then if the declination be south wards, take it out of your height which you have found, and then you shall have the height of the Equinoctiall, which substracted from 90, it sheweth under what height you are, south ward from the Line.



Example.

Behold the figure above standing, Let A D be the height of the Sunne in 64 degrees: the southerly declination E D 16 degrees: which substracted from A D the height of the Sunne, there remaineth for A E 48 degrees, the height of the Equinoctiall in the north, which substracted out of 90 then the height of the South Pole G B will bee 42 degree.

If the declination bee northerly, then adde it to the height found out, if then the addition bee lesse then 19 it sheweth you the height of the Equinoctiall, which taken out from 90, you finde the height of the south Pole.



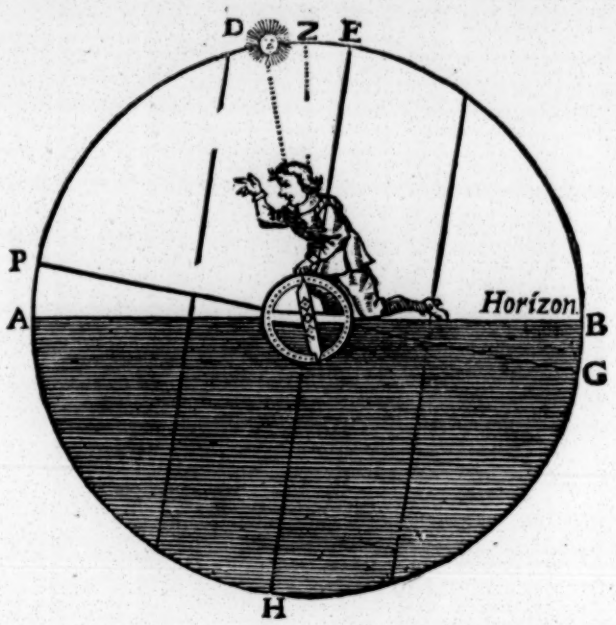
Example.

Looke on the figure with his circles as it followeth here after, let A D the height of the Sunne in the North bee 50 degrees, and D E, the northerly declination 15 degr. then adde 15 DE to DA 50 degrees, then you have 65 degr. for AE is the height of the Equinoctiall, then G B the height of the south Pole is 25 deg. for as in the 27 Point it is shewed, the height of the Equinoctiall E A with the height of the Pole G B alwayes make 90 degrees.

But if the height and the declination of the Sun added together make more then 90, you must note that the Line is south ward from you Zenith, as much as that number is above 90.

Example.

Look on the following figure, let the height of the Sunne A D in the north bee 84 degrees, the declination E D 21 degrees, adde then together, then you have A E 105 degrees, which is the distance between the Equinoctiall E, and the Horizon in the north, now marke that A E is 105, and P the Pole, and E the Equinoctiall, are even 90 degrees, from each other then it followeth that P from A is 15 degrees, that is the height of the N. Pole above the Horizon, and so much you must be northward from the Line, and you must also marke that you are betweene the Line and the Sunne.



How you shall finde the height when you are right under the Sunne.

IF you understand wel the rules before going, then this is easie to be found. If you be right under the Sun, that is when the Sun is elevated 90 degrees, then you are even as many degrees northward or southward from te Line, as the Sunne hath northerly or southerly declination.

The explication there of.

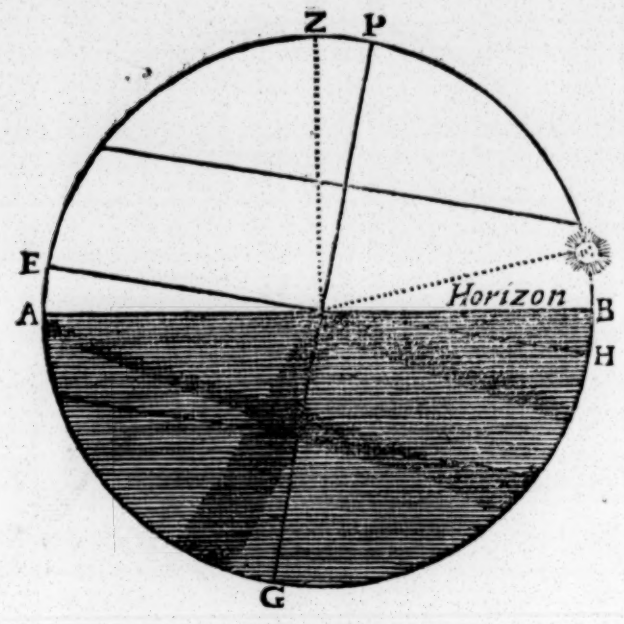
Suppose that you finde the height of the Sunne above the Horizon to bee 90 degrees, and that is declined toward the north 16 degrees, then are you also 16 degrees northward from the Line, and the nord Pole shall bee so much elevated.

But if the Sun hat no declination, that is, when it standeth even in the Line, and you must understand that you are also right under the Line, and so both the Poles are on the Horizon without ane elevation.

How you shall finde the height of the Sunne northward in such places where as it goeth not downe.

THey that in Summer sayle to Moscovia, in the moneths May, June & July, comming about the north Cape, finde, that the Sunne at that time hoeth not downe there, but is al wayes above the Horizon, so that a man according to the rules aforesaid, may not onely seeke the height of the Pole by the Sunne, when it is highest southward, but also when it is northward at the lowest, in this manner following. Take the height of the Sun with the crosse staffe, when it is lowest in the north, and adde there to the filling of the declination, (which is such a number as together with the declination make ninetie, or so much as the Sunne standeth from the Pole) and you shall find the just height of the Pole: or if you substract the height of the Sunne from his declination then you shal find how deep the Equioctial is depressed northward under the Horizon, or in the south elevated above

the Horizon, which ſubſtracted from 90, will likewiſe leave the height of the Pole, bot theſe wayes I will declare apart.



Example.

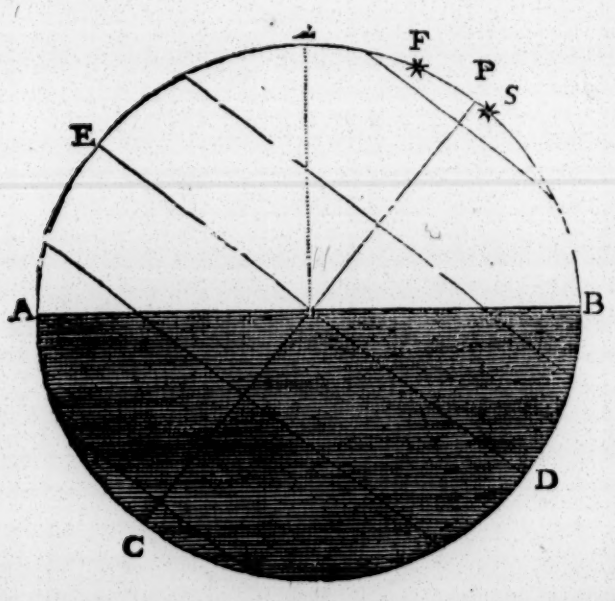
Mark the figure afore-going, where let B D be the height of the Sun about the Horizon, in the notth 7 degr. H D the declination of the Sun 20 degrees, then ſhall D P the filling of the declination, or the diſtance of the Sun from the Pole bee 70 degrees: now if you adde P D the filling of the declination 70, to bee B D 7, the height of the Sun, you ſhall find 77 degr. for B P the height of the Pole,

Anotber Example.

If you take the height of the Sun A D 7, from H D 20 the declinaton of the Sun, there will remain 13 for H B, & ſo much is the Equinoctiall in the north depreſſed under the Horizon, which if you ſubſtract from H P 90, there remaineth for A P, 77 the height of the Pole, as aboveſaid.

The 31 *Point.* How to find the height of the Pole. by the Starres.

TO find the height by the Starres which ſtand neere the Equinoctiall, you uſe them either ſubſtracting from or adding thereto their declination; as you de with the Sunne. And thoſe wich ſtand neere the Poles you muſt either ſubſtract from or adde to their diſtances from the Pole to their meaſured height and ſo find out the height of the Pole.

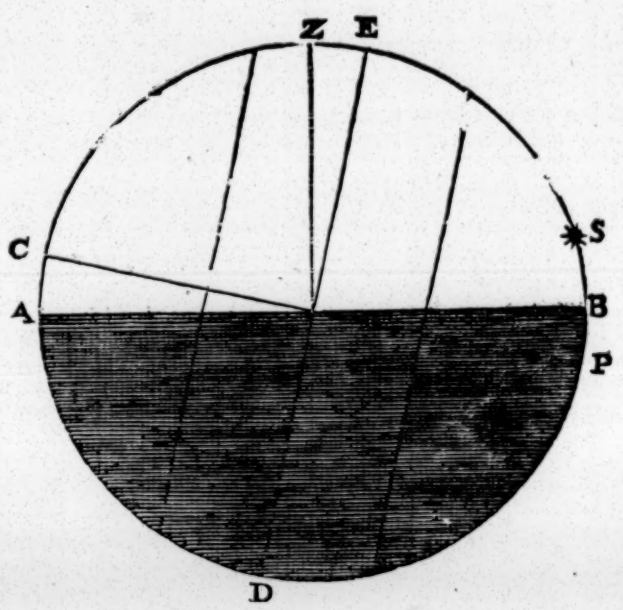


The firſt Example.

Let A B bee the Horizon, P the North Pole, E D the Equinoctiall, S the north ſtarre ſtanding under the Pole, I meaſure the height of the North ſtarre S B, above the Horizon 46 degrees, and for it I find in the Table the diſtance of the Northſtarre from the Pole P S, 2 degrees 42 minutes, adding this then to the height that I find B S and maketh together 48 degrees 42 minutes for P B the height of the Pole.

The ſecond Example.

Let F bee the cleareſt of the waiters above the Poles riſen above the Horizon F B 58 degrees, then his diſtance from the Pole F B being ſubſtracted 14 degrees 14 minutes even the foregoing table doth teach you, there reſteth for P B the height of the Pole 13 degrees 46 min-



If you come by Southwards the Line, and will uſe the Starres neere the Northpole, ſo may you ſubſtract the height (which you find) from the diſtance of the Starre from the Pole, and to find the depth of the North Pole under the Horizon, even to the height of the South pole above it.

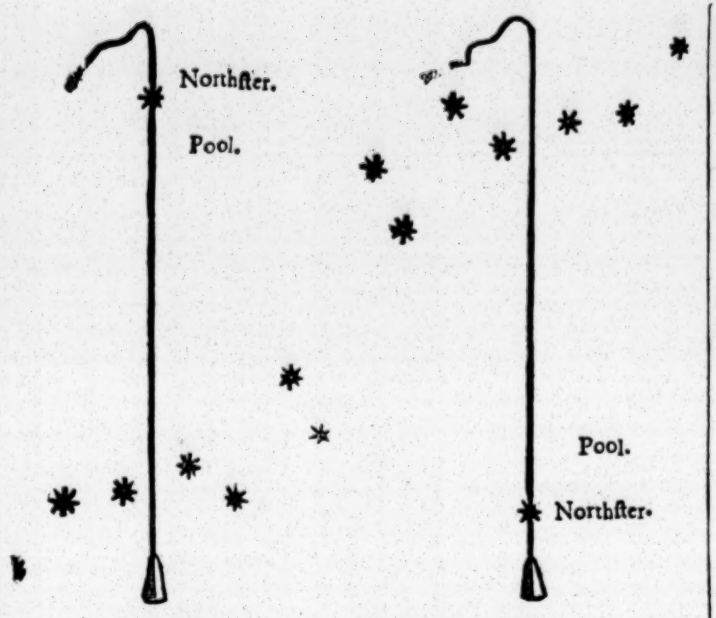
The third Example.

Let S bee the northermoſt hinder wheele of the greate wagon, his height above the Horizon in the North B S 20 degrees, which beeing ſubſtracted from S P, which is 26 degrees and 14 minutes beeing his diſtance from the Pole, here remaineth over B P 6 degrees 14 min. which the North Pole is ſunke under the Horiozon and to G A the height of the Southerne Pole.

Even as the ſoutherne Starres beeing full ſouth are at the heigheſt, ſo are likewiſe the Northerne in the north right above the Pole at the higheſt, or under the Pole at the lo weſt, this you may well neare ſee by your eye in many which ſtand ſome what farre diſtant from the Pole, too wit, when they ſtand either above or below the Northſtarre, but not right againſt it, by reaſon that the Northſtarre it ſelfe by it owne turnig about the Pole, wendeth either on one ſide or other ſome what from full North, ſoo that when you draw neare the North, you muſt ſtill bee meaſuring to find out the right higheſt or loweſt.

Now to know when the Northſtarre is either at his higheſt or loweſt pitch, ſtill marke wel the greate wagon, when that commeth under the Northſtarre, ſo that when you let a plummet line hang right againſt the northſtarre, it may likewiſe come to hang in the middle betweene the Wagon and the horſes, then is the northſtarre aight at his higheſt, above the Pole. Or when the Wagon alſo commeth above the northſtarre, and when you let a plummet line hang through betweene the Wagon and the horſes, that that alſo hangeth right againſt the northſtarre, then is the northſtarre right under the Pole at the loweſt, even as ſtandeth declinated in the following Figurus.

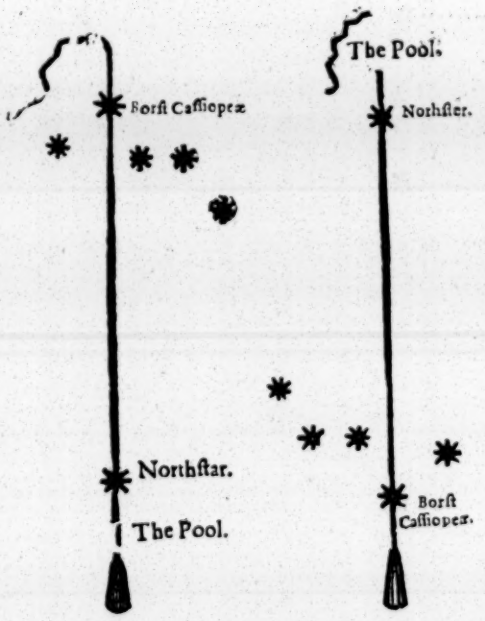
Thus



Thus is the Northſtarre right above the Pole.

Thus is the Northſtarre right under the Poole.

Or when the Starre in the Breaſt of Caſſiopeia commeth right above the Northſtarre, then is the Northſtarre above the Pole at its higheſt, & when it is right under the Northſtarre, then is the Northſtarre at the loweſt under the Pole, according to the demonſtration in theſe figures hereunder ſpecifyed.



The ſtars of the greate wagon are knowne to every one. And of the Starres of Caſſiopeia. There are 5 very cleare the principall in forme, as formerly ſtandeth expreſſed the ſecond of them that is which is fartheſt diſtant from the Northſtarre, and is in the breaſt, and ſtandeth neere upon as farre from the Northſtarre as the northermoſt fore wheele of the greate Wagon, if you hold a ſtraite ſtick upon the ſight, marke on end trough, betweene the Wagon and the horſes, and marke it in the midſts over the Northſtarre, and then the other end ſhall ſtretch over the foreſaid ſtarre called Caſſiopeias Breaſt.

The 32 *Point.* The uſe of the North ſtarre when you take the height by the wayters which are on the northern hinderwheele of the great Wagon.

FOr as much as many Pilots know not the names of many of the fixed ſtarres, and therefore follow the uſe of the north ſtarre according to the points of the compaſſe: we have for the uſe for theſe men, made two ſorts of tables the one according to the waters (which we have mended,) the other according to the northern hinder wheele of the great Wagon, both of them on the foure ſtrokes north, ſouth, eaſt and weſt, and in as much as in this kinde or worke the north ſtar hath a different ſtanding in ſundry heights of the Pole, we have calculated the tables agreeing to divers heights or latitudes from 10 degrees to 10 degrees as followeth.

At the height of 10 *degrees.*

Wen the brighteſt of the wayters ſtandeth in the
- Eaſt, then is the north ſtar under the pole 1 deg. 28 min.
- North, then it is 2 degr. 28 minutes under the pole.
- Weſt 1 degree, 22 min. above the pole.
- South 2 degrees, 18 min. above the pole.

At the height of 20 *degrees.*

Wen the brighteſt of the wayters ſtandeth in the
- Eaſt, the n. ſtar is 1 degree, 31 min. under the pole.
- North, the n. ſtar is 2 degr. 18 min. under the pole.
- Weſt, the n. ſtar is 1 degr. 19 min. above the pole.
- South, the n. ſtar is 2 degr. 19 min. above the pole.

At the height of 30 *degrees.*

When the brighteſt of the wayters ſtandeth in the
- Eaſt, the n. ſtar is 1 degr. 35 min. above the pole.
- North, the n. ſtar is 2 degr. 18 min. under the pole.
- Weſt, the n. ſtar is 1 degr., 14 min. above the Pole.
- South, the n. ſtar is 2 degr., 19 min. higher then the Pole.

At the height of 40 *degrees.*

The wayters in the
- Eaſt, the n. ſtar is 1 degr. 39 min. under the Pole.
- North, the n. ſtar 2 degr. 17 min. below the Pole.
- Weſt, the n. ſtar is 1 degr., 10 min above the Pole.
- South, the n. ſtar is 2 degr. 10 min. above the Pole.

At the height of 50 *degrees.*

The wayters in the
- Eaſt, the n. ſtar is 1 degr. 44 min. below the pole.
- North, the n. ſtar is 2 degree, 17 min. below the pole.
- Weſt, the n. ſtar is 1 degr. 3 min. above the pole.
- South, the n. ſtar is 2 degr. 20 min. above the pole.

At the height of 60 *degrees.*

The wayters in the
- Eaſt, the n. ſtar is 1 degr. 52 min under the pole.
- North, the n. ſtar is 2 degree, 16 min. below the pole.
- Weſt, the n. ſtar is 53 min. higher then the pole.
- South, the n. ſtar is 2 degree, 20 min. above the pole.

At the height of 70 *degrees.*

The wayters in the
- Eaſt, the n. ſtar is 2 degr. 5 min. under the Pole.
- South, the n. ſtar is 2 degr. 15 min. under the pole.
- Weſt, the n. ſtar is 32 min. above the Pole.
- South, the n. Star is 2 degr. 22 min. above the pole.

At the height of 30 *degrees.*

The wayters in the
- East, the north ſtar is 2 degr. 33 min. under the Pole.
- North, the north ſtar is two degr. 12 min. under the Pole.
- Weſt, the north ſtar is 33 min. under the Pole.
- South, the north ſtar is 2 degrees 44 min. higher then the Pole.

The uſe of the North ſtarre, agreeing with the northermoſt hinder wheele of the Wagun.

At the height of 10 *degrees.*

When the northermoſt Wheele of the wagon ſtandth in the
- East, then is the n. ſtar higher then the Pole 1 degree, 1 min.
- North, the n. ſtar is two degrees 27 min. above the Pole.
- Weſt, the n. ſtar is 1 degree, 13 min. lower then the Pole.
- South, the n. ſtar is under the Horizon out of ſight.

At the height of 20 *degrees.*

The northern wheele of the Wagon.
- East, the n. ſtar is 54 min. higher then the Pole.
- North, the n. ſtar is 2 degr. 27 min. under the Pole.
- Weſt, the n. ſtar is 1 degree, 19 min. lower then the Pole.
- South, the n. ſtar is 2 degr. 27 min. above the Pole.

At the height of 30 *degrees.*

The Northermoſt hinder-wheele of the Wagon.
- East, the n. ſtar is 47 min. higher then the Polle.
- North, the n. ſtar is 2 degr. 27 min. under the Pole.
- Weſt, the n. ſtar is 2 degree, 26 min. a bove the Pole.
- South, the n. ſtar is 2 degree, 27 min. under the Pole.

At the height of 40 *degrees.*

The Northermoſt hinder-wheele.
- East, the n. ſtar is 38 min. above the Pole.
- North, the n. ſtar is 2 degr. 27 min. under the pole.
- Weſt, the n. ſtar is 1 der 34 min. below the Pole.
- South, the n. Star is 2 degr. 28 min. above the pole.

At the height of 50 *degrees.*

The Northermoſt Wheele.
- East, the n. ſtar is 24 min above the pole.
- North, the n. ſtar is 2 degree, 26 min. under the pole.
- Weſt, the n. thar is 1 degree, 45 min. under the pole.
- South, the n. ſtar is 2 degree, 28 min. above the pole.

At the height of 60 *degrees.*

The Northermoſt hinder Wheele.
- East, the n. ſtar is 2 minnutes above the pole.
- North, the n. ſtar is 2 degree, 26 min. under the pole.
- Weſt, the n. ſtar is 2 degr. 1 min. under the pole.
- South, the n. ſtar is 2 degr. 28 min. above the pole.

At the height of 70 *degrees.*

The Northern hinder Wheele.
- East, the n. ſtar is 41 min. under. the pole.
- South, the n. ſtar is two degr. 25 min. under the pole.
- Weſt, the n. ſtar is 2 degree, 22 min. under the pole.
- South, the n. ſtar is two degr. 29 min. above the pole.

At the height of 10 degr. the n. hinder Wheele of the great Wagon cannot come from the Horizon at the ſame height with the northſtarre.

A Declaration of the Eaſt, Weſt, South, and Northerne Watters, and of the great Wagon.



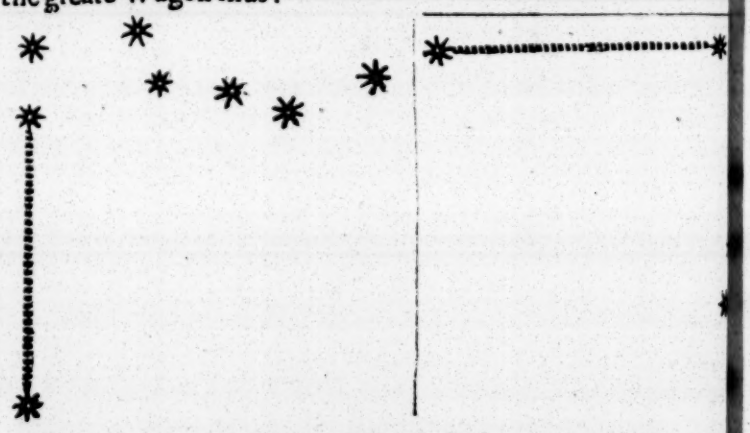
The waiters East, that is when the cleareſt or middlemoſt ſtandeth towards the eaſt, and higer above the waiters Horiſon then the nortſtarre, according to the explication of the firſt figure.

The waiters north, that is when the cleareſt ſtandeth right above the northſtarre, even as in the ſecond figure.

The waiters weſt, that is when the middlemoſt of the waiters, ſtandeth towards the weſt, and there withal one high above the Horiſon, as in the third figure.

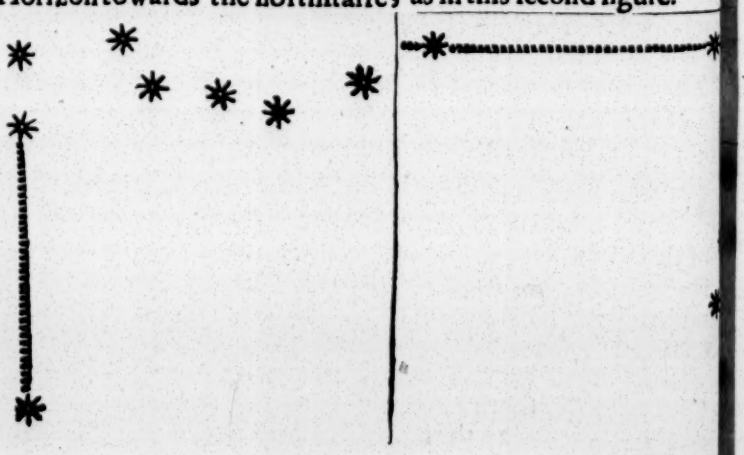
The waiters ſouth, that is when the cleareſt of them ſtandeth rigt under the northſtarre, as in this fourth figure.

In the ſame manner as of the waiters, ſoo is alſo to bee underſtood. The East, Weſt, South and north of the Northermoſt hinder Wheele of the greate Wagon thus:



The northermoſt hinder Wheele in the north, that is, when the ſame ſtandeth right above the northſtarre, according to the explication in the firſt figure.

The northermoſt hinder Wheele of the Wagon, eaſt is when as the ſame ſtandeth eaſtwards and high above the Horizon towards the northſtarre, as in this ſecond figure.



The

The ſame hinder wheele of the Wagon in the ſouth is when it ſtands right over the Northſtarre even as in the third figure.

And in the Weſt, when it ſtandeth Weſtwards and high towards the Northſtarre above the Horiſon as is ſeene in the fourth figure.

The uſe of the foreſaid Table.

You muſt ſtay till you have the cleareſt of the waiters, or the northermoſt hinder whele of the greate Wagon, upon any of the foreſayd Points, then you take the height of the North ſtarre above the Horiſon. The height beeing ſound with the queſſing together. You may then ſomething nearely know the height of the Pole. Then you can ſufficiently find out of the foreſaid Tables how much the Northſtarre is higher or lower then the Pole. Is it higher, then you muſt ſubſtract from, but is it not lower you muſt adde that to the meaſured height, and ſoo come to find the right height of the Pole.

Theſe foreſaid Tables are reckoned all from 10 degrees to 10, and when you are betweene ſuch heights ſoo ſhall you (comming upon other heights) take notice, how many degrees you are either above or under theſe reckoned Poles. And therewithall how greate the difference is between ſuch two, ſeeing wee find, that have obſerved it, you take from the difference according to the reaſon of the height where you are, leſſe or more from the foreſaid numbers, adding that to or ſubſtracting from, even as the cauſe requireth.

The firſt Example.

In the height of 46. I deſire to know how much the Northſtarre ſtandeth lower then the waiters ſtand in the eaſt, obſerving. How great the difference is betweene the height of 40 and 50 degrees, I find 5 minutes increaſing, I ſay therefore 10 degrees difference in height giveth 5 minutes, what amounteth 6 degrees to, facit 2 minutes, that beeing addy by the 1 degree 39 minutes which I find on the Table over againſt 40 degrees becauſe the difference is increaſing from 40 towards 50 degrees, and ſo I finde it 1 degree 42 minutes.

The ſecond Example.

In the height of 48 degrees, I deſire to know, how farre the North Starre ſtandeth too high, when the moſt northerly hinder wheele of the Wagon ſtandeth Eaſt, the difference in the Table betweene 40 and 50 degrees height is 14 minutes leſſening, I ſay therefore if 10 degr. differ. in height 14 minut. what ſhall 8 degr. doe, facit full 11 minutes, theſe beeing ſubſtracted from 38 minutes ſtanding right againſt 40 degrees height, now becauſe that the difference of 40 to 50 degrees leſſeneth, I find 27 minutes, which the Northſtarre ſtandeth too high upon the aforeſayd 48 degrees.

The 32 *Point.* Concerning the elevation of the havenly Lights through the Damps.

IT Is knowne by experience that Sonne, Moone, and all the Starres approaching the Horiſon, ſeeme alſo to bee more and more high then in truth, they are the cauſe whereof wee ſuppoſe to bee the damps, which continually, through the warmth of the waters and the earthly moiſtures) riſe from the earth, which how nearer they are to the Horiſon are ſoo much the thicker, and thereby the lights ſoo much the more ſeeme to bee higher. The neare you come to the Pole, ſo much the more damps, and thereby the elevation of the heavenly lights above their places are the greater. The famous Aſtronomer Tycho Brahe hath by correct obſervation found it in his Clime in the latitude of 55 degrees 56 minutes even as theſe following tables teach you.

The Table of the Sunnes Elevation.

The Sun high	0 degrees	appeareth	34 minutes	higher then it is really.
	1 degrees		26 minutes	
	2 degrees		20 minutes	
	4 degrees		15 minutes	
	7 degrees		13 minutes	
	10 degrees		10 minutes	
	16 degrees		7 minutes	
	23 degrees		3 minutes	
	32 degrees		1 minutes	

The Table of the Starres Elvation.

The ſtars high	0 degrees	appeare	30 minutes	higher then they are indeed.
	1 degrees		22 minutes	
	2 degrees		15 minutes	
	4 degrees		11 minutes	
	7 degrees		8 minutes	
	11 degrees		5 minutes	
	15 degrees		3 minutes	

The uſe of the foreſaid Tables of Elevation.

IF you meaſure the Sonnes height above the Horiſon leſſe then 32 degrees you muſt ſubſtract ſoo much as the Table teacheth you on the number of the height you have found: If you meaſure the diſtance of the Sonne from the Zenith more then 58, on the contrary you ſhall adde as much too as the Table beſides the ſuppliment to 90 from the meaſured diſtance from the Zenith, teacheth. But the Sunne being more then 40 degrees above the Horiſon and 50 degrees from the Zenith, theſe exaltations and elevations come to nothing.

The firſt Example.

I meaſure the height of the Sonne above the Horiſon 4 degrees, the Table of Elevations of the Sonne pointeth mee the Sonne to appeare 15 minutes higher then in truth it is, & draw then thoſe 15 minutes off from my meaſured height, & I doe keepe for the true height of the Sunne 3 degree 45 minutes.

The Second Example.

I meaſure the diſtance of the Sunne from the Zenith 74 degrees, the ſupplement thereof to 90 is 16 degrees thereby in the Table of the Sonne, I find 6 minutes which I adde to the diſtance I meaſured and ſoo I find for the right diſtance 74 degrees 7 minutes.

Even as it is ſayd of the Sonne, according to the Table of the Sonne, ſoo muſt you alſo doe with the Starres according to the Table of Starres.

The firſt Example.

I meaſure in the Nort upon the lowneſſe of the middlemoſt Horſe on the greate Wagon 7 degrees above the Horiſon, beſides that I find in the Table of Starres 8 minutes, which being ſubſtracted from the meaſured height, I detaine for the true height 6 degrees 52 minutes.

The Second Example.

I meaſure the diſtance from the Zenith of the Conſtellation which wee call the greate Dogg 86 deg. the ſupplement thereof to 90 is 4, even beſides that I find in the Table 11 minutes, which beeing joyned by the diſtance you found, I find it 86 degrees 11 minutes.

The 33 *Point.* Of the CARD.

IT is knowne to every man, eſpecially to thoſe that underſtand the grounds of Caſmographie, that the earth

earth with the waters make one compleate round body, & therefore it cannot be, that you ſhould ſet forth the ſame perfectly in a plane or Carde (either in the hole or in part) but there will bee ſome want, for it is unpoſſible to make a plaine agree with a round forme in all the parts thereof. So that your common cardes many times fayle in truth, eſpeciall thoſe that comprehend great and long voyages by ſea, and far from the Equinoctiall; but the Maps which are commonly uſed in this Countrey, of the Eaſterly and Weſterly Navigation, are without fault, or at leaſt the errors are ſo little that they hinder not.

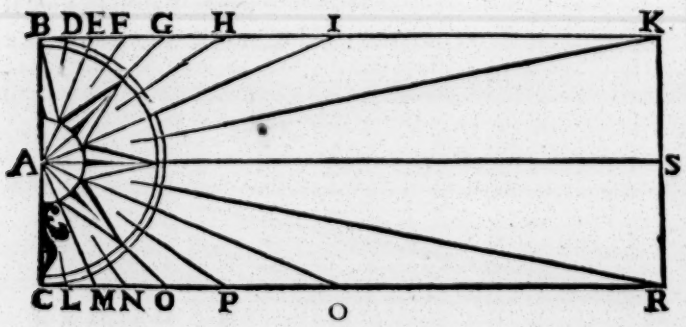
Tey are very fit inſtruments to bee uſed at ſea, and our forefathers, which have invented them, have brought no ſmall profit and utility to Mariners. The fault of them conſiſts in this, and thus it may bee ſeene: If you would fayle a triangle, the 2 firſt ſides wil bee fayled on their ſtrokes and diſtances, but from the 2 to the 3 place (that is the 3 ſide of the triangle) it will fayle both on the ſtrokes and diſtances.

Example.

I ſayle from the Lizards a ſtraight courſe to the Ilands of Canary, and from thence againe to the Ilands of Corvo and Flores, on which foreſayd ſtroks and diſtances many Maps are very complete and perfect. But if I would ſayle againe from Corvo to the Lizard, from whence I firſt ſailed, the Card will ſhew mee an imperfect way, to wit, it wil ſeeme farther wide in the Card, then indeed it is, alſo it will differ on the point of the Compaſſe: ſo that you muſt direct your courſe more northerly then that which your Card directeth.

In ſoo ſhort a journey, as this above ſaid, it is not much obſerved, neither is it worth the obſervation: but thoſe that ſail to the Weſt-Indies, ſhall ſoone perceive it; when they ſet ſayle, they take their courſe far to the ſouth, and there they finde their Cards of a fift length, becauſe the Cards are fitted to it; But in their returne, when they thake their courſe northward, they finde the way much ſhorter then their Cardes ſhew them.

This is the cauſe: All the lines in the Card from north and ſouth are drawne every where at an equall diſtance each from other, from the Equinoctiall to the Pole; but on a globe which is made round like the earth, they are not of an equall diſtance, but the more northerly they come, ſo much the nearer they come each to other. So that two ſtrokes from north to ſouth at the latitude of 60 degres, are but halfe ſo wide from one another, as they are at the Equinoctiall, and at the Pole they touch each other. Therefore two ſhipps being under the Equinoctiall diſtant from one another two hundred leagues, they may both ſayle directly north without hinderance, comming to the height of 60. gr. but being 100 leagues from each other, and that following the ſame courſe, they would in the end meet each other under the pole, but if you direct ſuch two ſhips by a plaine Carde, they will bee alway at places lying far north, are much too wide, unleſſe they bee drawne in, which cannot bee doone, but you muſt make other places more faulty.



The 34 *Point.* How many miles or leagues you muſt ſayle on every point of the compaſſe before you ſhall get a degree in breadth of the land.

WHen you ſayle right ſouth or richt north on any one point of the compaſſe, as from A to B or C, you ſayle for a degree 15 leagues.
And you ſay under the ſame Meridian.

On the point north and by eaſt, or ſouth and by eaſt, as from A to D or L, you ſayle for a degr. 15 & a halfe deg,
And then you are out of the Meridian whence you ſayled, as it were from B to D 3 leagues.
Northnortheaſt and ſouthſoutheaſt, as from A to E or M, for a degree 16 leagues.
You are from the Meridian whence you ſayle 6 leagues as from B to E.
Northeaſt and by north, and ſoutheaſt and by ſouth you ſayle as from A to F or N 12 leagues.
You ſhal be without the ſame line as from B. to F 10 leag.
Northeaſt and ſoutheaſt, you ſayle for a degree as from A to G or O 21 leagues.
You are then off the north and ſouth line whence you ſayle as it were from F to G or C O 15 leagues.
Northeaſt and by eaſt and ſoutheaſt and by eaſt, as from A to H or P for a degree 27 leagues.
You are then out of the firſt Meridian, as from B to H, or C P 22 leagues,
Eaſtnortheaſt or eaſtſoutheaſt, you ſayle for a degree as from A to I or Q 39 and a halfe league.
You ſhall bee out of the Meridian, as from B to I or from C to Q 36 leagues.
Eaſt and north or eaſt and by ſouth, as it were from A to K or R you ſayle for a degree 77 legaues & a halfe.
Then are you out of the Meridian, as from B to K, or from C to R. 75 leagues.
Eaſt or Weſt, as from A to S, you remaine between the Pole and Equinoctiall on the ſelfe ſame breadth of the earth or land.

The 35 *Point.* Of variation of the Compaſſe, and how you ſhal find the turning aſide of the needle or variation.

THe needle or the ſtile under the Compaſſe, touched with rhe Load-ſtone, draweth to divers places diverſely, in ſome places directly to the north, in other places it wenderh to the eaſt, and it other towards the weſt; As for Example, at the Ilands of Corvo and Flores, the moſt weſterne of the Flemiſh Ilands. At Helmſhuy a little on the weſt ſide of the north Cape. About 30 leagues weſtwards from the ſouth corner of Spitsburg, on the eaſt ſide of the Cape of good Hope, at Cabo das Aguilhas, and at other places, as well in the Eaſt as in the Weſt-Indies, the needle directeth you juſt north: Weſtwards from the Flemmiſh Ilands on the eaſt ſide of the Cape, at Nova Zembla, on the coaſt of Spitsburgh, and on the eaſt ſide of Cape das Aguilhas on all the Indian Sea, it ſtandeth from the north Weſtwards, and in the eaſt ſide of the Flemmiſh Ilands, on the weſt ſide of the Cabo de Bona Eſperance and other places more, it ſtandeth from the north eaſtwards. The variation of the needle is two-fold, to wit, from the north to the weſt, and from the north to the eaſt, and the ſouth are againe of two ſorts, the increaſing & decreaſing weſtward, in like for the increaſing and decreaſing eaſtwards. The increaſing eaſtward and weſtward, is, as you ſayle from eaſt to the weſt, increaſing & diminiſhing, that which decreaſeth, may he plainely under ſtood by this Example.

1 *Example.*

If you ſayle from the Ilands Corvo and Flores, where the needle ſtandeth right eaſtwards on the coaſt of Spaine, the needle beginneth by little and little ſo much the more, to wind toward the eaſt, until you have ſayled the Strait of Gibraltar, where it is at the higheſt (as they hold) 13 gr. that is increaſing northeaſtering.

From thence ſayling alongſt the Middle-lands-Sea, it beginneth to decreaſe, until you come at the place, called the Month of the Venetian Gulfe, where it vaniſheth, and the needle againe draweth directly north, this they call decreaſing north eaſtering.

2 *Example.*

If you ſayle from the Cabo das Aguilhas (where the needle

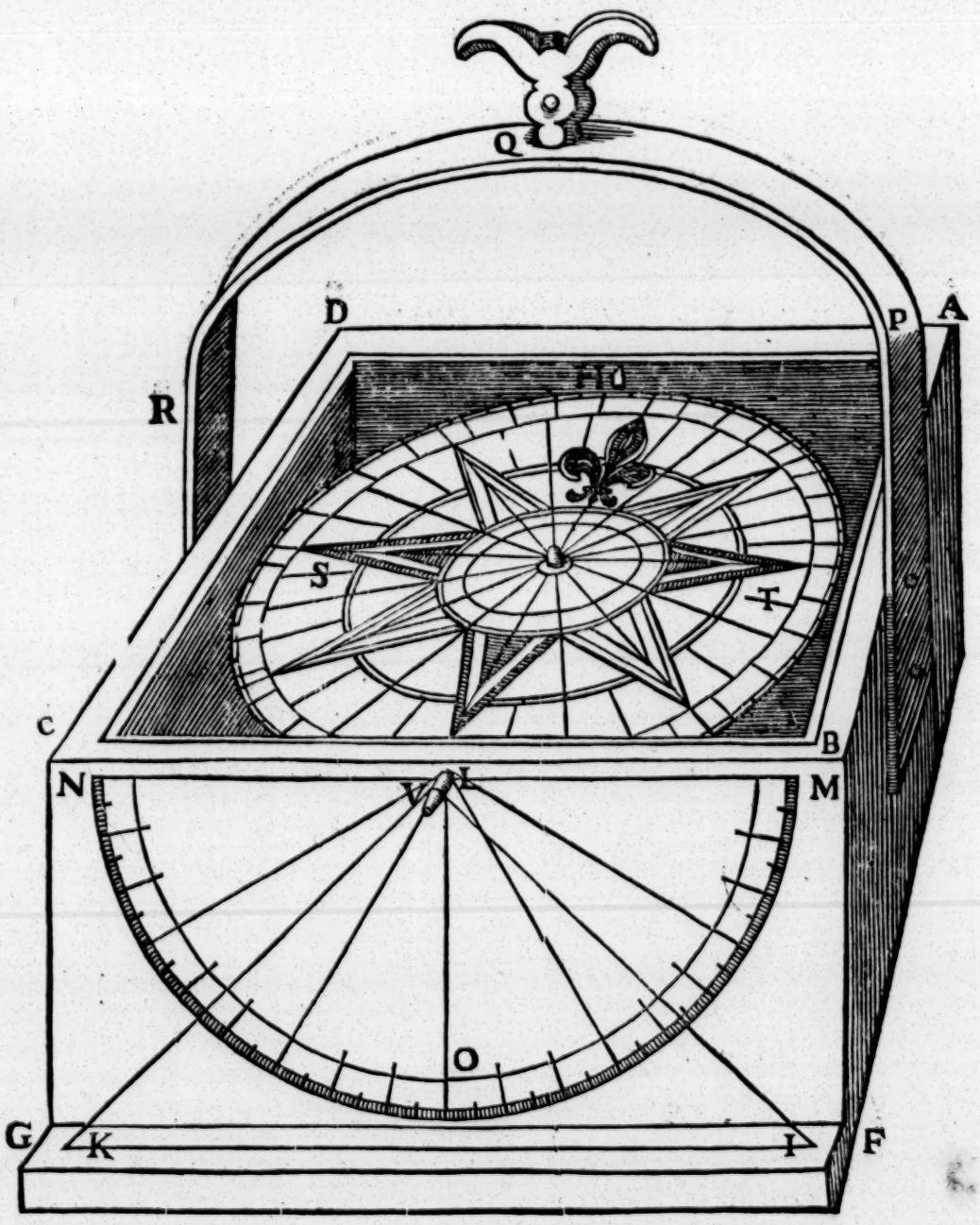
needle ſtandeth directly north) eaſtwards to the Indies the needle beginneth to decline from the north towards the weſt, untill you come a little on the eaſt ſide of the Iland S Brandaon, where it is at the heigth of 22 gr. or two whole ſtrokes that is increaſing northweſtering.

Sayling from thence, you begin to decreaſe, till you are at the ſouth point of Celebes, where againe the needle draweth right, this is called decreaſing northweſtering.

For the common navigation from this Countrey to the eaſt, north, England, France, or Spaine the ſtiles (to direct the Lilly right north) ſet faſt under the roſe, about two third parts from the ſtroke, from the north to the eaſt. The ſtretching and courſe of the one Countrey towards the other in the common Cards, are drawne by ſuch a Compaſſe, ſo that you may ſayle it without altering of the Compaſſe or ſhaking any other reckoning or account.

In great journies, when the needle declineth ſometime to the weſt, and ſometime to the eaſt, a ſtroke or two, or more, it is neceſſary to obſerve it ſharply, over what ſide, and how much it ſtandeth from the north, that you may be certaine, what courſe you ſhall hold in ſailing.

To find the declinning of the compaſſe, that is, how much the lilly ſtandeth to the eaſt or the weſt, ſeek firſt the juſt north (that by it you may know the declining) thus make a box quadrangle, or foure cornered, and reaſonable deep as is followes ABCDEFG, in the midſt of it under in a glaſſe let the Compaſſe ſwimme on a pinne, ſo that it bee round about at an equall diſtance from the box, as ST divide that on the outermoſt corner of the Roſe into foure, times ninety degrees, and lay the needle juſt under it, even as in the compaſſe that you follow in ſayling. Within on the one ſide of te box, which wee call the north ſide, make a ſharp coper or braſen corner or edge, juſt in the midſt between A and D, lifted upon the ſide A D, ſo that the compaſſe may paſſe cloſe by it without let, as H, without on the ſouth ſide B C F G, at the under corner make a little beame, as F G, about halfe an inch broad at the upper-edge, in each ſide make a hole at I and K, both equally diſtant from the flat B C F G, at the under corner make a little beame, as F G, from the one to the other a right line which may bee plainly ſeene, as I K; at the upper-edge in the middeſt betweene B C, make a pinne as long as the under beame, like L, and juſt ſo farre as the line I K on the beame ſtandeth from the flat, juſt ſo far make from the flath a ſcoach in the foreſayd pinne L, after that make a ſtring or a ſmooth cord faſt to each end in the foreſaid holes of the little beame as at I K, and with the midſt of the foreſaid pinne at V, ſo that the ſtring being ſtretched hard, may ſtand at an equal diſtance from the flat in all places B C F G, from the point L make a halfe circle, a little lifted out of the flat, as M D N, ſo that the line M N be equally diſtant at all points with the upper-edge of the box, or the beame and the line L O deviding the halfe circle into two quadrants, ſquare right

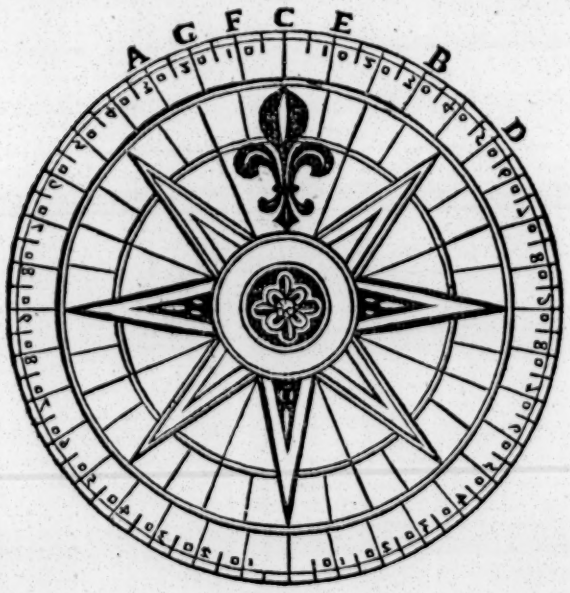


on I K, divide the halfe circle at the inner corner in twice ninety degrees.

Laſtly, make a ring of braſſe or woods as PQR, that you may hang the box on it, that the uppermoſt flat A B C D may hang Water-compaſſe, the ſouth ſide B C F G, and the edges B F C G, and the Line L O juſt in the lead, this being thus prepared, the uſe followeth.

Three or foure houres before noone, more or leſſe you

ſhall turne the corner C G, towards the Sunne, ſo that the ſhaddow of the one ſide of the ſtring L K may fall right along the line K I, and then looke the degree of the compaſſe which commeth to ſtand by the braſen edge H, which I ſuppoſe to bee the 30 degrees of north and by Weſt, as in the ſecond Figure following at A. At the ſame inſtant, you ſhall obſerve the height of the Sunne at the ſhaddow of the pinne L, in halfe circle M O N, or you ſhall take it more truely and certainly with the croſſe ſtaffe or Aſtrolabe, that which wee take here to be 25 gr. we ſet it down for memories ſake. Further you ſhall ſtay ſoo long in the afternoone, untill the Sunne bee come to the ſame height of 25 gr. then turne the edge B F, juſt againſt the Sunne, ſo that the ſhaddow of the ſide of the ſtring L I may fall right along the line I K, and look what degree of the compaſſe commeth to ſtand by the coper or braſen edge H, which I ſuppoſe to bee the 30 gr. for the north, toward the eaſt, as on B, this being ſo in the middeſt of the circle A B, as at C, is the north point which you deſire, and if the Lilly bee directed right to it, then hath that compaſſe no variation, but directeth right north. But if your taking aforeſaid in the afternoone bee not found the thirrieth, but the fifrieth degree from the north to wards the eaſt, as at D, in ſuch a cauſe you ſhall devide the circle A D, being 80 gr. at E, into two parts, ſo that A E and E D may each of them contayne 40 gr. which being ſo, E wil bee the north Point, and ſuch a compaſſe turneth from the north to the weſt from E to C 10 gr. which is very neare a whole ſtroke. But if in the foreſaid taking in the afternoon the coper or braſen edge hath ſtood 10 gr. on the Weſt ſide of the Lilly or flour deluce, as at F, then you muſt devide the circle A F, containing 20 into two parts at G: ſo that A G and G F might each of them containe tenne degrees, which being ſo, G will be the north point, and the Lilly of ſuch a com paſſe windeth toward the eaſt from the north 20 gr. namely from C to G, and thus it will bee in al other figures. This is to bee obſerved: that you may take the height before the noon twice, thrice, foure times or more, at divers heights of the Sunne; As for Example: The firſt time when the Sunne is at the height of 10 gr. the ſecond time at the height 15 gr. the third at 20 gr. and in the afternoone at the ſame hight and by comparing the one taking with the other, you ſhall finde how then agree each

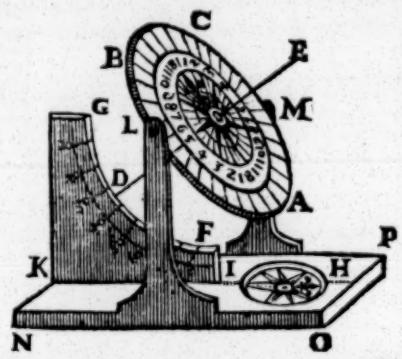


with other, thus finding alwayes the ſame north point, you ſhall be certaine that you have taken it truly & right.

Of the Tides.

IT is knowne to alle experienced Marinres that the ebbing and flowing of the ſea is governed by the Moone, ſoo that every new and full Moone the waters are higher which they call ſpring-tydes, and at the quarter of the Moon the waters are loweſt: ſo that you may know and that certainly by former obſervation, (although the true and reall cauſe thereof is yet hidden from us) the houre of the tyde, and on what point or ſtroke the moone maketh high water in any particular place, to the great profit and furthertherance of navigation.

To know on what ſtroke the Moone is, it may be done in a two fold manner, by the ſight, or by marking how old the Moone is; to looke at ſome ſtroke of the Compaſſe, it may not be done according to the common Compaſſe lying flatte or driving water Compaſſe, becauſe the Horizon divideth only into equall ſtrokes, and ſheweth in what virticall Circle or Azimuth the Sunne or moone ſtandeth, but by a compaſſe that (being lifted up) according to the Superficiall part of the Equinoctiall, devideth the Equinoctiall in equall parts, as the common flat two driving doth the Horizon, ſuch an Equinoctiall compaſſe is made in this manner as you ſee in this figure: where the roundell A B C ſheweth the flat of the Equinoctiall, the gnomen E D the axeltree of the world. The foreſaid rondel in B marked on both ſides, in the inſide with the compaſſe, and on the edge of the outſide with twice



24 houres and in the eaſt and weſt at L and M hanging on two pinnes as it were on an axeltree, ſo that theſe being turned up and downe, and the gnomen ſet and the nether end by D and by the Quadrant F D G, that you may place him at the height of any pole.

If you ſet ſuch a Compaſſe with the bottom water compaſſe, the line H K juſt north and ſouth, to wit, H to the north and K to the ſouth, and the lower end of the gnomen by ſuch a degree of the Quadrant F C, according to the height of the Pole where you are: there will the roundell A B C, ſtand even with the ſurfaſe of the true Equinoctiall, and the gnomen E D with the axeltree of the world.

The ſight on ſuch a Compaſſe, and a comon one, differeth very much, and by how much nearer the Equinoctiall ſoo much more will the difference bee, as will appeare by this example following.

The firſt Example.

On the height of 50 gr. or thereabout, the Sunne being in the beginning of Cancer in the greateſt northerly declination, it is on a common Compaſſe eaſt at halfe an houre paſt ſeven, and weſt at halfe an houre paſt foure, that is: he goeth from the eaſt to the weſt through the ſouth in nine houres, but from the weſt through the north to the eaſt in 15 houres.

The ſecond Example.

At the height of 30 degrees, hee comes little before halfe an houre paſt nine at the eaſt, and a little after halfe an houre paſt two to the weſt, and ſo it goeth in leſſe then five houres and a halfe from the eaſt through the ſouth into the weſt, but from the weſt through the north to the eaſt he goeth more then 18 houres.

The third Example.

The Dragonſhead being in the beginning of Aries, and the Moone in the beginning of Cancer, they make 5 gr. more declination then the Sunne, and go to the foreſaid height of 30 gr. more then an houre ſooner from the eaſt to the weſt, then the Sunne, to wit, about the ſpace of 4 houres, and againe from the weſt to the eaſt about the ſpace of 2 houres.

Under the line, the Sunne having noo declination, riſeth in the morning in the eaſt, and riſing remaineth eaſt untill he commeth to the Zenith and paſſeth that to the weſt,

weſt and abideth ſo deſcendig weſt, till he approacheth the Horizon and is according to a flatt driving compaſſe, the one half of the day eaſt, and the other weſt, without comming on any other ſtroke; but it is not ſo on ſuch an Equinoctiall compaſſe. The Sunne and Moone both going alwayes in the ſame diſtance of time over every ſtroke, to wit, from the eaſt to the ſouth in ſix houres, and from the ſouth to the weſt in ſix houres, and againe from the weſt through the north in twice ſix houres.

The firſt Example.

Under de Line, the Sunne being in the Equinoctial, I ſet the end of the gnomen E directly north, the other end D to the ſouth at the upper-edge of the Quadrant at G on O. the gnomen E D ſnall lye water Compaſſe, like the axeltree of the world, and the roundell right in the lead upright like the true Equinoctiall there. The Sun comming above the Horizon, the ſhaddow of the gnomen ſhall direct you to the ſixt houre in the eaſt, for the riſing, but if hee riſe beyond the edge of the roundell, and devideth that in te ſame time into equall parts with the ſhaddow, being 45 gr. above the Horizon, the ſhaddow of the gnomen will direct you to the 9 houre in the ſouth, being come into the Zenith, the ſhaddow ſhall fall juſt on the lead at the twelfth houre in the ſouth, againe 45 gr. that is, deſcending halfe way the weſt, the ſhaddow ſhall be at the third houre in the afternoene in the ſouthweſt, but coming to the Horizon the ſhaddow ſhall fall on the ſixt houre in the weſt.

As this is ſpoken of the Sun, the ſame muſt bee under ſtood of the moone in as much as concerneth the points or ſtrokes af the Compaſſe.

To reckon by the age of the moone, wee have ſet in the table following under every ſtroke two ranckes of cipets, the firſt are the dayes of the age of the moone, or the dayes paſt ſince the moone was new or at the full the ſecond the houres and minutes of thoſe dayes, in the which the moone comes to ſuch a ſtroke, & maketh at the place ſtanding by high water.

The ſecond Example.

Eight dayes after the moon hath beene new or at the full, I deſire to know wen the moone commeth to the ſouth, at Embden, or Enckhuyſen; and ſuch like places, makes high water (for there a north and a ſouth moone makes full ſea) I ſeek under the north and ſouth ſtroke the 8 day in the 1 columne, and by that in the ſecond 6 houres, 24 minut. on that then ſhall the moone come to the north and ſouth at 6 hour 24 min. and make high water in that place.

The tyde 48 min. later every day, that is foure or five parts of an houre, then if youw know at what houre the new or full moone make high water in any one place, you ſhall reckon from that firſt day every day foure or five parts of an houre later, and ſo you ſhall find the juſt time of high water or full ſea in that place.

The third Example.

When the moone is new or full, then it is at Amſterdam and Rotterdam (and whereſoever a ſouthweſt and northeaſt moone maketh full ſea) high water at three of the clocke, a day after the new or full moone at three of the clocke 24 min. two dayes after at foure of the klocke and 36 min. and foure dayes after the new or full moon at ſix of the klocke 12 minutes.

Here follow the Tables of the VVater-tydes.

South, and North.

da.	ho	mi	
0	12	0	At the Juttish Ilands
1	12	48	Before the Hever. Eyder, and
2	1	36	Elve, before Emden, & Delfs-
3	2	24	ziel, before Enchuyſen, Horn
4	3	12	and Urck, upon al the coaſts
5	4	0	of Vlanders, upon the fore-
6	4	48	land. At Dover in the Pier, at
7	5	36	Beveſier on the ſand, at Han-
8	6	24	ton on the Kay, Before
9	7	12	Schietenburch and the Ras
10	8	0	of Blanckert.
11	8	48	At Olfernes.
12	9	36	In the conduit.
13	10	24	At Jubleter in the Road.
14	11	12	
15	12	0	

Falling of ſtreams upon the ſame ſtroke.

From the Neſſe to Beunen.

South Southweſt, and North Northeaſt.

da.	ho	mi	
0	12	45	Within the Maſe
1	1	33	Within the Veer
2	2	21	at Flushing
3	3	9	Neare Beviſier in Sea
4	3	57	In the Chamber
5	4	43	In Charmſey.
6	5	33	
7	6	21	
8	7	9	
9	7	57	
10	8	45	
11	9	33	
12	10	21	
13	11	9	
14	11	57	
15	12	45	

South and by Weſt, and North and by Eaſt.

da.	ho	mi	
0	1	30	Under the Holy Land.
1	2	18	Before the Maſe and Goeree.
2	3	6	Before the Veere.
3	3	54	at Armewe. Upon the flat be-
4	4	42	fore Rammekens. Before the
5	5	30	Wielings. On the Sealand
6	6	18	Coaſts. Before the Thames of
7	7	6	London.
8	7	54	Before Yarmouth
9	8	42	In Duyns on the Road
10	9	30	Neare the Cingle
11	10	18	On the Weſter end of Wight
12	11	6	Without Callice and Swarte-
13	11	54	In Blavet. (nes
14	12	42	Bulliue at the Land.
15	13	30	

Falling of ſtreames upon the ſame ſtroke.

From Beunen to the Sont. Alſo from Eſtaple to Beunen.

Falling of ſtreames upon the ſame ſtroke.

From the Gravelinghen to Beunen.

Southweſt by South, and Northeaſt by North.

da.	ho	mi	
0	2	15	Without Fontenay
1	3	3	Without Blavet
2	3	51	Under Bulline
3	4	39	Before the Wieling
4	5	27	Before the Maſe.
5	6	15	
6	7	3	
7	7	51	
8	8	39	
9	9	27	
10	10	15	
11	11	3	
12	11	51	
13	12	39	
14	1	27	
15	2	15	

Falling of ſtreames upon the ſame ſtroke.

Amidſt through the heads, from Duynkerck to Greveling.

From Staples to Fecam.

From Dortmouth to Exmouth.

Southweſt and Northeaſt.

da.	ho	mi	
0	3	0	At Amſterdam, Rotterdam,
1	3	48	Dort and Zierickſea. Before
2	4	36	Newcaſtle, the Teſe, & Harie
3	5	24	poole. In Robin hoods bay,
4	6	12	without the Flemish Bankes,
5	7	0	In the pas of Calice. Before
6	7	48	Conquet at pey marqus groy
7	8	36	Armentiers, Heys, Kiliaets,
8	9	24	Porthus, the river of Bordeux.
9	10	12	On all the ſouth coaſts of Bri-
10	11	0	tagne, Gaſcoigne, Poictu. On
11	11	48	all coaſts of Biſcaye, Galiſſien,
12	12	36	Portugale and Spaine. On the
13	1	24	weſt coaſts of Ireland, at Bo-
14	2	12	kenes or Orkeneſſe. in Hitland
15	3	0	and Fairehil.

Falling of ſtreames upon the ſame ſtroke.

From Caep de Hague to the Iland of Ornaey. From Garney to Caquet from Mylford to ramſey. at Fawike in the Chanel At Portland in the Sack.

Southweſt by Weſt, and Northeaſt by Eaſt.

da.	ho	mi	
0	3	45	between the pas of Calice &
1	4	33	the Maſe at Roan. In the
2	5	21	Sorlis, before S. Matthews
3	6	9	point. In Briſtow and Crix-
4	6	57	down. In the forde betweene
5	7	45	Heyſent. Bofore the Bos, at
6	8	33	S. Martens before Rochel, be-
7	9	21	fore Bronwage. At Roan. In
8	10	9	the river of Bourdaux within
9	10	57	the chanels ſituated on the
10	11	45	coaſts of Spain, Galiſſien, the
11	12	33	Southſide of Bretaigne, Gaſ-
12	1	21	coigne, and the Weſt coaſts of
13	2	9	Ireland.
14	2	57	
15	3	45	

Falling of ſtreames upon the ſame ſtroke.

From Struſaert to Deepe. From Lézart to Start. From Cape Clare to London.

Weſt Southweſt, and Eeaſt Northeaſt.

da.	ho	mi	
0	4	30	From Texel to the pas of Ca-
1	5	18	lice in the fareway. Before
2	6	6	Humber, before Flambrough
3	6	54	& Schereuborugh Abrac. In
4	7	42	Famouth, in the Mouſchole,
5	8	30	Seven Iſlands, S. Pauls with-
6	9	18	out the Haven, betweene
7	10	6	Garnſey and the ſeven Iſles in
8	10	54	the farewater. In the Bree-
9	11	42	ſand, without the foure. All
10	12	30	ſouth coaſts of Ireland, as
11	1	18	Kinſael, Corke, Jochel, Wa-
12	2	6	terfood, and Cape de Cleare.
13	2	54	
14	3	42	
15	4	30	

Falling of ſtreames up on the ſame ſtroke from Oſtend to S. Catelines, from Berchfleur to Struſaert. The Breſand out and in From C. de Clare to the Iland ſaltees, between London & Holmes ſo far as Briſtow, from Sorlings to Englands end, From Starre point to Portland.

West by South, and East by North.

da.	ho	mi	
0	5	15	In Torbay and Dortmouth.
1	6	3	In Pleimmouthand Fawyke.
2	6	51	In the Sea of Galles.
3	7	39	In Eſmoth.
4	8	27	In Miford.
5	9	15	At Ramſey in Wales.
6	10	3	Before Lin in England,
7	10	51	Againſt London.
8	11	39	In all havens on the South
9	12	27	coaſts of Ireland.
10	1	15	
11	2	3	
12	2	51	
13	3	39	
14	4	27	
15	5	15	

Falling of Streames upon the ſame ſtrok.

From Iſle Bas to the Foure. From Dorſy to Caep de Cleare. From the Sorlis to Lizard. From Portland to wigt to Beach or Beveſier.

West and East.

da.	ho	mi	
0	6	0	Before Hamburgh.
1	6	48	Before Bremen.
2	7	36	Before the Maeſdeep or Teſ-
3	8	24	ſel.
4	9	12	At Hull.
5	10	0	At Blakney and Wels.
6	10	48	Before Antwerpe.
7	11	36	Tergoes.
8	12	24	Tergouwe.
9	1	12	At Concallo and S. Malo.
10	2	0	S. Pauls in the haven.
11	2	48	Without the Sorlis in the
12	3	36	Channell.
13	4	24	
14	5	12	
15	6	0	

Falling of Streames upon the ſame ſtroke.

From the Kiſcaſſes to Berghsfleur. From Englands end to Lizard.

Weſt and by North, and Eeaſt by South. Weſt Northweſt, and eaſt. Southeaſt. Northweſt by Weſt and Southeaſt by Eaſt.

da.	ho	mi			da.	ho	mi			da.	ho	mi		
0	6	45	Betweene Fawijck and Famouth in the Channel.	Falling of ſtreams upon the ſame ſtroke.	0	7	30	At the Neſſe by Wieringen, in Texel in the Coopvaerders Roade.	Falling of ſtreames upon the ſame Stroke.	0	8	15	Without the Kiskaſſes in the channell.	Falling of ſtreames upon the ſame ſtroke.
1	7	33	A midſt in the Channel.		1	8	18	At Kilduyn.		1	9	3	By Wight in the Channel.	
2	8	21	At Briſtow at the Key.		2	9	6	In the middle of the channel In the Fareway.		2	9	51	From Wight to Beveſier by the Lend.	
3	9	9	Before S. Nicolaes and Podeſſemske.		3	9	54	NeareGoutſtart in theChannell.		3	10	39	Upon the Weſt Coaſt of the Foreland.	
4	9	57			4	10	42	And betweene Mouſchole & Famout in the Sea.		4	11	27	Without the Flye.	
5	10	45			5	11	30	Neare Plymouth in the Sea.		5	12	15		
6	11	33			6	12	18	At Lizart by the Land.		6	1	3		
7	12	21			7	1	6			7	1	51		
8	1	9		From the Iland bas to Marwanen along the land.	8	1	54		From the Iland Briack to S. Malo. From Bergfleur to Seynhead.	8	2	39		Behinde Garnſey in the fare water. Within the ſeven Ilands.
9	1	57			9	2	42			9	3	27		
10	2	45			10	3	30			10	4	15		
11	3	33			11	4	18			11	5	3		
12	4	21			12	5	6			12	5	51		
13	5	9			13	5	54			13	6	93		
14	5	57			14	6	42			14	7	27		
15	6	45			15	7	30			15	8	15		

Northweſt, and Southeaſt. Northweſt by North, and Southeaſt by South. Northweſt and Southſoutheaſt.

da.	ho	mi			da.	ho	mi			da.	ho	mi		
0	9	0	Before the eaſt & weſt Eemſes.	Falling of ſtreames. upon theſame ſtroke.	0	9	45	The Needles of Wight.	Falling of ſtreames upon theſame ſtroke.	0	10	30	At Olfernes and Harwigde without the banks.	Falling of ſtreames upon the ſame. ſtroke.
1	9	48	Before the Flye.		1	10	33	In the Channel by Wight.		1	11	18	At Leyſtaff in the Roade.	
2	10	36	Before the Scholbalgh.		2	11	21	The Kiskaſſes.		2	12	6	Yarmouth in the Road.	
3	12	24	On al the Freeſe Coaſts.		3	12	9	At Garnſey in the Channel.		3	12	54	Before the Thames of London.	
4	12	12	Upon the Fraeſe and Wieringer Flack.		4	12	57	Neare Leyſtaff & Yarmouth Without the bancks.		4	1	42	At Margar.	
5	1	0	Before Crammer winterduyn and Yarmouth.		5	1	45	At Tergouwe.		5	2	30	At wight within.	
6	1	48	Within the Seyne.		6	2	33	At the wolfs-horne.		6	3	18	At Beunen Deede and Seynhead.	
7	2	36	At the eaſt end of Wight.		7	3	21			7	4	6	In the Foſſe of Caen.	
8	3	24	In the Raſſe of Portland.	In the wyke of Benyte Betweene morliax and the Treacle pots.	8	4	9		BeforeConcallo, before the Iland of S. Michael in the Creeck.	8	4	54	At Struyſaert & al the Coaſts of Normandy & Picardy.	From Bergfleur to Algonga. From C. Dorci to the Iland Dardan.
9	4	12	Betweene Garnſey and the Kiſcaſſes.		9	4	57			9	5	42	At S. Helena and Calveroort	
10	5	0			10	5	45			10	6	30		
11	5	48			11	6	33			11	7	18		
12	6	36			12	7	21			12	8	6		
13	7	24			13	8	9			13	8	54		
24	8	12			14	8	57			14	9	42		
15	9	0			15	9	45			15	10	30		

North and by Weſt, and South and by Eaſt.

da.	ho	mi		
0	11	15	Betweene Cripple ſand and the Kreyl.	Falling of Streames upon the ſame ſtroke.
1	12	3	Within at Olfernes.	
2	12	51	At Hampton.	
3	1	39	At Portsmouth, and at wolfers horne.	
4	2	27	At Calveroort in Wight.	
5	3	15	Before the Haven of Caen.	
6	4	3	Within the Thames of London.	
7	5	51		
8	5	39		
9	6	27		
10	7	15		
11	8	3		
12	8	51		
13	9	39		
14	10	27		
15	11	15		

The 37 Point. How to finde the age of the Moone.

TO doe this without an Almanack, you muſt know the Epact or Key of the yeare, and that you ſhall finde by the Golden number, and the Golden number thus: looke how many years there are paſt from the yeare of our Lord, 1500, and theſe divide by 19 and what remains is the Golden number of that yeare, if there remaine nothing, the golden number is 19.

Example:

I deſire to know the Golden number of the yeare 1665 ſetting the 1500 aſide, I devide the 165 by 19, I find 8, and the remainder is 13. Then the Golden number of the yeare 1665 is 13.

The Golden number increaſeth every yeare with the beginning of the yeare with one, as in the yeare 1664, it is 12, in the yeare 1665 it is 13, and ſo forth to 19, after that againe 1, 2, 3, &c.

The Epact changet every yeare on the firſt of March, increaſing with 11 to 30, but being more then 30, you muſt leave that 30 and the remainder is the Epact. You ſhall finde it by the golden number thus: tel the golden number on the 3 joynts of your thumme, beginning with one at the lower joynt, to the golden number of your yeare propoſed, if this kinde, of telling doth end at the lower joynt, the Epact and the golden number ar eall one: but if it end on the ſecond jount, adde 10. if on the third joynt, adde 20 by the ſame golden number, that number then is the Epact of that yeare.

Example.

I deſire to knowe the Epact for the yeare 1665, the Golden number is 13, telling the tree joynts of the thumme, beginning with 2, on the undermoſt joynt, the telling endeth with 13 on the uppermoſt joynt, adding 0, to 13, the Golden number, you ſhall have 13 for the Epact of that yeare.

According to the old ſtile, the Golden number is the ſame with the new ſtile, but the Epact is 10 more, therefore if you adde 10 to the Epact of the new-ſtile, you have the Epact for the old ſtile, as for the yeare 1665, 10 by 13 (the Epact of the new ſtile) comes 23, for the Epact of the old ſtile.

But to find the Epact without counting, when the Golden number is knowne, according to the old and new ſtile, view this table fallowing, where they are ſeth the one by the other.

Golden Number.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
New Epact.	1	12	23	4	15	26	7	18	29	10	21	2	13	24	5	16	27	8	19
Old Epact.	11	22	3	14	25	6	17	28	9	20	1	12	13	4	15	26	7	18	29

The

The Epact being known, you ſhall adde it to the number of the moneths that are paſt from March to the moned you are in, the ſame moneth being reckoned with it, if this bring fort 30, then it is new moon the firſt day of the ſame moneth, but as much as it wanteth of 30 ſo many dayes you have to the new moon.

Example.

In the year 1663. I deſire to know when the moon ſhall be new in the moneth of Auguſt, the Epact of that yeare is 21, adding there unto 6 for the number of the moneth ſince March (the moneth of Auguſt being included) it makes 27, therewants 3 to make it 30, the moone then ſhall bee new 3 dayes after (namely the 3 of Auguſt.)

The Epact, the Number of the moneth ſince March, and the day of the moneth being added, ſuch a number, (or wharſoever it brings forth, more then 30) ſheweth the age of the moon.

Example.

To know the age of the moon on the 12 of Auguſt 1665. I adde the Epact 13, to 6 the moneths paſt, and 12 for the 12 dayes, they make together 31, whereof ſubſtract 30, remaines 1, for the age of the moon. This is to be underſtood after the New-ſtile.

To finde out eaſily without caſting up the time of the new moon, we have here adjoydned an Almanack for 8 years next enſuing, calculated by the meridian of Amſterdam, ſhewing the day and houre of every new and full moon, together with the quarters, the uſe of it is thus: by the moon in every moneth there are two columnes of ciphers, the firſt ſheweth the day of the moneth, the ſecond the houres and minutes of the new and full moon, to reckon from the noone of the ſame day to the noone of the day following, according to theſe uſe and cuſtome of Aſtronomers.

Example.

I would know in the yeare 1665. in the moneth of September, on what day and houre the moon will be new, ſeeke therefore in that yeare the moneth September, and I finde the new moon on the 8 day, 22 houres, 31 minut. telling from noone tyde 22 houres, 31 minutes, this runs to the next day enſuing in the morning, being the 9, at 10 a clock, 31 minutes after midnight.

To know what day of the week that will bee, you muſt firſt know the Dominicall letter of that year, & with what letter each moneth beginneth, the Sundayes letter you ſhall finde under the Almanack of each year; the leap-year hath two, the firſt you ſhall uſe to the 25 of Februarie, the other to the end of the year, every moneth beginneth with ſuch a letter as this table following ſheweth.

Januarie, Februarie, March	begins with	A, D, D	April, May, June	begins with	G, B, E
July, Auguſt, Septemb.	begins with	G, C, F	October, Novem., Decemb	begins with	A, D, F

For as much as September beginneth with F, begin to tell in the Circkel letters here under with F, and then proceed to tell forward to 9, which falls out in G, & ſeing the Dominicall letter of this year is D, you may tell from D, to G, D on ſunday, E on munday, &c. and G on the wedneſday, and ſo with all the reſt. In the Leap year you muſt tell both the 24 and 25 on F, becauſe the 25 and 24 day were added on F.

A
G B
F C
E D

Almanack for the year 1675. New-ſtile.

	Moon.	da.	ho	mi.
January	First quart	3	16	29
	full moon	11	7	54
	laſt quart	18	1	17
	new moon	25	10	3
Februa.	First quart	2	13	0
	full moon	9	19	53
	laſt quart	16	10	30
	new moon	24	3	36
March,	First quart	4	7	10
	full moon	11	5	49
	laſt quart	17	21	22
	new moon	25	21	22
April,	First quart	2	21	56
	full moon	9	14	26
	laſt quart	16	11	1
	new moon	24	14	0
May,	First quart	2	8	45
	full moon	8	22	30
	laſt quart	16	1	48
	new moon	24	4	57
June,	First quart	31	15	53
	full moon	7	6	50
	laſt quart	14	17	53
	new moon	22	17	48
Jule,	First quart	29	20	20
	full moon	6	16	6
	laſt quart	14	10	43
	new moon	22	4	48
Auguſ.	Friſt quart	29	0	0
	full moon	5	3	22
	laſt quart	13	3	49
	new moon	20	14	26
Septe.	Friſt quart	27	5	11
	full moon	3	16	58
	laſt quart	11	20	29
	new moon	18	23	26
Octob.	First quart	25	13	3
	full moon	3	9	2
	laſt quart	11	12	11
	new moon	18	8	19
Nove.	First quart	25	1	43
	full moon	2	2	56
	laſt quart	10	2	19
	new moon	16	17	56
Dec.	First quart	23	17	38
	full moon	1	21	42
	laſt quart	9	14	0
	new moon	16	4	42
	First quart	23	12	45
	full moon	31	15	36

The golden number & the Epact is 4, the Roman Indiction 13, the Sunday leter F, the late winter 8 weeckes and 5 dayes, Quinquageſima of faſtens eve the 24 February, Eaſter the 14 Aprill, aſcention day the 23 May, whitſuntide 2 Iune, advent the 1 of December; this year there will be 2 great Eclipſes in the Moon, and alſo 1 in the Sunne, the firſt in the Moon will be on the 11 Ianuary at even at 8 a clock 1 min. and will laſt 3 hours 50 min. the Second will by in the Sunne the 25 Ianuary 10 min. after noon the 3, in the Moon the 7 of Iuly in the morning at 4 a clock 2 minutes, both the Eclipſes in the Moon may be ſeen of us here.

Almanack for the year 1676. New-ſtile.

	Moon.	da.	ur.	mi.
January	laſt quart.	7	23	17
	new moon	14	17	10
	first quart.	22	9	29
	full moon	30	7	30
Februa.	laſt quart	6	6	34
	new moon	13	7	11
	first quart.	21	5	21
	full moon	28	0	40
March,	laſt quart	6	13	30
	new moon	13	22	39
	first quart.	22	1	15
	full moon	29	7	6
April,	laſt quart.	4	21	22
	new moon	12	14	39
	first quart.	20	17	36
	full moon	27	14	49
May,	laſt quart.	4	7	12
	new moon	12	6	49
	first quart.	20	6	37
	full moon	26	22	49
June,	laſt quart.	2	19	0
	new moon	20	21	46
	first quart.	18	15	0
	full moon	25	5	58
Jule,	laſt quart.	2	9	8
	new moon	10	12	3
	first quart.	17	22	45
	full moon	24	24	14
Auguſ.	laſt quart.	1	1	5
	new moon	9	1	9
	first quart.	16	3	30
	full moon	22	23	34
Septe.	laſt quart.	30	18	42
	new moon	7	12	50
	first quart.	14	8	20
	full moon	21	12	4
Octob.	laſt quart.	29	13	6
	new moon	6	23	48
	first quart.	13	14	47
	full moon	21	3	2
Nove.	laſt quart.	29	7	21
	new moon	5	10	11
	first quart.	12	0	48
	full moon	19	21	16
Dec.	laſt quarr.	28	0	34
	new moon	4	19	53
	first quart.	11	14	36
	full moon	19	16	37
	laſt quart.	27	15	24

The gulden Number is 5, the Epact 15, the Romane Indict 14, the Sonday letter ED, late winter 6 weeckes 4 dayes, Quinquag. or Schrovetneſday the 16 Feb. Eaſter the 5 of April, Aſcentionday the 14. of May, Whitſunday the 24 of May, Advent the 29 of Nov. This yeare there will be 3 Eclipſes, to wit 2 in the Sun, and 1 in the Moone, the firſt ſhal be in the Moone on the 1 of January, in the morning at 3 of the clock, the ſecond ſhal be in the Sun, on the 11 of Jan. in the forenoon at 10 of the clock, the 3 alſo in the Sun, on the 5 of December in the forenone, at 8 of the clock, where of the two firſt ſhal be ſeen of us, but the laſt ſhall be ſeen out of our ſight.

Almanack for the year 1677. New-ſtile.

	Moon.	da.	ur	mi.
January	new moon	3	6	47
	first quart.	10	7	29
	full moon	18	11	49
	laſt quart.	26	3	11
Febru.	new moon	1	17	52
	first quart.	9	2	35
	full moon	17	5	9
	laſt quart.	24	11	43
March,	new moon	3	5	50
	first quart.	10	22	23
	full moon	18	19	40
	laſt quart.	25	17	51
April,	new moon	1	18	42
	first quart.	9	18	31
	full moon	17	7	2
	laſt quart.	23	23	2
May,	new moon	1	8	25
	first quart.	9	10	42
	full moon	16	15	57
	laſt quart.	23	5	52
June,	new moon	30	23	6
	first quart.	8	1	41
	full moon	14	23	17
	laſt quart.	21	14	43
Jule,	new moon	29	13	47
	first quart.	7	13	50
	full moon	14	6	2
	laſt quart.	21	2	18
Auguſ.	new moon	29	4	7
	first quart.	5	23	28
	full moon	12	11	54
	laſt quart.	19	16	54
Septe.	new moon	27	19	37
	first quart.	4	4	44
	full moon	10	22	9
	laſt quart.	18	10	15
Octob.	new moon	26	5	50
	first quart.	3	12	29
	full moon	10	9	16
	laſt quart.	18	5	9
Nove.	new moon	25	23	14
	first quart.	1	18	23
	full moon	8	23	21
	laſt quart.	17	0	55
Dec.	new moon	24	11	37
	First quart	1	2	44
	full moon	8	14	18
	laſt quart.	16	18	58
	new moon	23	22	40
	first quart.	30	13	55

The Golden Number is 6, the Epact 26, the Romane Indict 15, the Sundayes letter C, late winter 9 weeckes 2 dayes, Quinquag. or Shrovetneſday the 28 of February Eaſter the 18 Aprill. Aſcention-day the 27 of May, Withſunday the 6 June. Advent the 28 of November, this yeare there ſhall appeare 4 Ecclipſes, to wit, 2 in the Sun, and 2 in the Moone, the firſt in the Moon the 17 of May at 3 a clock 57 minuts in the morning and ſhall laſte from the beginning to the ende 2 houres 46 minutes, hir Bignes 6½ Intches, the ſecond in the Sun the 31 of May, at 11 of the clock in the forenoone, the 3 ſhal be in the Moone, the 9 of November, at 11 of the clock 21 Minutes, in the forenoone, the fourth in the Sun, the 24 November, at 11 a clock at night, where of the firſt in the moone, is to bee ſeen of us, and other 3 ſhal beſeen from us.

Almanack for the year 1678. New-ſtile.

	Moon.	da.	ur.	mi.
January	full moon	7	11	28
	laſt quart.	15	14	16
	new moon	22	5	53
	First quart	29	4	8
Febru.	full moon	6	6	46
	laſt quart.	14	4	54
	new moon	20	19	24
	First quart	27	20	30
March,	full moon	8	0	52
	laſt quart.	15	15	5
	new moon	22	5	56
	First quart	29	13	6
April,	full moon	6	16	23
	laſt quart.	13	22	4
	new moon	20	16	0
	First quart	28	8	40
May,	full moon	6	5	2
	laſt quart.	13	2	34
	new moon	20	3	22
	First quart	28	2	0
June,	full moon	4	15	13
	laſt quart.	11	8	54
	new moon	18	15	57
	First quart	26	18	16
Jule,	full moon	3	23	12
	laſt quart.	10	13	7
	new moon	18	7	58
	First quart	26	8	50
Auguſ.	full moon	2	6	34
	laſt quart.	8	21	57
	new moon	16	21	23
	First quart	24	21	29
Septe.	full moon	31	3	58
	laſt quart.	7	10	34
	new moon	15	13	13
	First quart	23	8	2
Octob.	full moon	29	22	24
	laſt quart.	7	2	18
	new moon	15	5	39
	First quart	22	16	36
Nove.	full moon	29	8	40
	laſt quart.	5	21	24
	new moon	13	21	34
	First quart	20	23	52
Dec.	full moon	27	21	25
	laſt quart.	5	18	8
	new moon	13	11	56
	First quart	20	7	11
	full moon	27	12	56

The Golden Number and the the Epact is 7, the Romane Indict 1, the Sunday letter B, late winter 8 weeckes 1 day, Quinquag. or Shrovetneſday the 20 of Febr. Eaſter the 10 Aprill, Aſcention day the 19 May, Whit Sunday the 29 May, Advent the 27 Nov. this yeare ſhall appeare 6 Ecclipſes, the 1 in the Sun on the 21 Aprill, at 4 of the clock in morninge, the 2 in the Moone the 6 of May, at 6 of the clock in the evening, the 3 in the Sun the 20 May at 3 of the clock in the afternoone, the 4 in the Sun, the 15 October at 7 a clock in the evening, the 5 in the Moone, the 29 Octob. at 8 of the clock in the evening, the 6 in the Sun, the 14 Novemb. at 9 a clock, in the forenoone, of wich the laſt ſhal be ſeen with us in the moone, but all the others out of our ſight.

Almanack for the year 1679.
New-ſtile.

	Moon.	da.	ho.	mi.
	laſt quart.	4	15	5
	new moon	12	0	49
January	First quart	18	15	52
	full moon	26	6	33
	laſt quart.	3	10	30
	new moon	10	11	42
Febru.	First quart	17	2	58
	full moon	25	1	0
	laſt quart.	5	2	58
	new moon	11	21	20
March,	First quart	18	16	16
	full moon	26	16	40
	laſt quart.	3	15	47
	new moon	10	6	4
April,	First quart	17	7	28
	full moon	25	9	0
	laſt quart	3	0	29
	new moon	9	13	56
May,	First quart	16	23	36
	full moon	25	0	55
	laſt quart.	1	5	20
	new moon	7	23	57
June,	First quart	15	16	30
	full moon	23	12	44
	laſt quart.	30	9	40
	new moon	7	10	31
Jule,	First quart	15	9	23
	full moon	22	22	28
	laſt quart.	29	13	44
	new moon	5	23	3
Auguſ.	First quart	14	1	39
	full moon	21	6	47
	laſt quart.	27	20	35
	new moon	4	13	56
Septe.	First quart	12	17	24
	full moon	19	5	7
	laſt quart.	26	6	49
	new moon	4	6	27
Octob.	First quart	12	7	11
	full moon	18	23	48
	laſt quart.	25	21	11
	new moon	3	4	3
Nove.	First quart	10	19	10
	full moon	17	9	42
	laſt quart.	24	14	52
	new moon	2	16	15
Dec.	First quart	10	4	45
	full moon	16	21	41
	laſt quart	24	11	7

The Golden Number is 8, the Epact 18, the Romane Indict 2, the Sundayes letter A, the late winter 7 weekes, Quinquageſima or Shrovetneſday 12 February, Eaſter the 2 Aprill, Aſcention day the 11 of May, Whitſunday the 21 May, advent the 3 Dec., this yeare ſhall appeare unto us 4 Eccliſpes 2 in the Sun and 2 in the Moone, the firſt in the ſun on the 10 Aprill 6 houres after noone, the 2 in the Moone the 25 Aprill, at 9 a clock at night, and ſhall laſte from the beginning to the ende, 2 houres 48 Minutes, the 3 in the Sun, the 4 of October, in the evening at 6 a clock 27 minutes, the 4 in the moone, the 19 October, about noone, the firſt in the moone can ouly be ſeen with us.

Almanack for the year 1680.
New-ſtile.

	Moon.	da.	ho.	mi.
	new moon	1	10	58
	firſt quart.	8	12	52
January	full moon	15	10	38
	laſt quart.	23	7	35
	new moon	31	1	31
	firſt quart.	6	19	49
Febru.	full moon	14	2	33
	laſt quart.	22	4	30
	new moon	29	13	29
	firſt quart.	7	4	8
March,	full moon	14	19	11
	laſt quart.	22	22	27
	new moon	29	22	52
	firſt quart.	5	11	58
April,	full moon	13	11	57
	laſt quart.	21	13	26
	new moon	28	6	49
	firſt quart.	5	1	57
May,	full moon	13	3	41
	laſt quart.	21	0	17
	new moon	27	14	22
	firſt quart.	3	15	31
June,	full moon	11	18	45
	laſt quart.	19	7	52
	new moon	25	22	3
	firſt quart.	3	6	49
Jule,	full moon	11	7	54
	laſt quart.	18	12	47
	new moon	25	7	11
	firſt quart.	1	23	44
Auguſ.	full moon	9	19	49
	laſt quart.	16	55	34
	new moon	23	18	4
	firſt quart.	31	17	19
Septe.	full moon	8	6	15
	laſt quart.	14	22	0
	new moon	22	7	29
	firſt quart.	30	11	3
Octob.	full moon	7	16	15
	laſt quart.	14	5	55
	new moon	22	0	10
	firſt quart.	30	2	2
Nove.	full moon	6	1	51
	laſt quart.	12	16	51
	new moon	20	18	45
	Firſt quart	28	19	22
Dec.	full moon	5	11	52
	laſt quart.	12	10	6
	new moon	20	14	5
	firſt quart.	28	8	6

The Golden Number is 9, the Epact 29, the Roman. Indict, 3 the Sunday letter G F, late winter 8 weeks 6 dayes, Quinquageſima or Shrovetneſday the 3 March, Eaſter day the 21 Aprill, Aſcention day the 30 May, Whitſunday the 9 June, advent the 1 December, this yeare will appeare 2 Eccliſpes, in the ſun and non in the moone, the firſt in the ſun the 30 of March, in the morning at 10 of clock 54 minutes, the Second in the ſun, the 22 of September, in the evening at 7 a clock 29 Minutes, out of our ſights.

Almanack for the year 1681.
New-ſtile.

	Moon.	da	ho	mi.
	full moon	3	20	54
	laſt quart	11	4	50
January	new moon	19	8	24
	Firſt quart	26	17	57
	full moon	2	10	38
	laſt quart	10	0	59
Februa.	new moon	18	0	20
	Firſt quart	25	1	9
	full moon	3	23	38
	laſt quart	11	21	17
March,	new moon	19	13	15
	Firſt quart	26	7	17
	full moon	2	13	56
	laſt quart	10	15	47
April,	new moon	17	23	35
	Firſt quart	24	13	56
	full moon	2	5	1
	laſt quart	10	8	6
May,	new moon	17	7	40
	Firſt quart	23	22	19
	full moon	31	20	30
	laſt quart	8	21	13
June,	new moon	15	13	39
	Firſt quart	22	9	25
	full moon	30	11	17
	laſt quart	8	6	56
Jule,	new moon	14	22	13
	Friſt quart	21	23	12
	full moon	30	1	50
	laſt quart	6	14	57
Auguſ.	new moon	13	5	29
	Firſt quart	20	14	35
	full moon	28	14	52
	laſt quart	4	20	39
Septe.	new moon	11	15	15
	Firſt quart	19	8	39
	full moon	27	4	37
	laſt quart	4	1	35
Octob.	new moon	11	3	41
	Firſt quart	19	3	52
	full moon	26	16	36
	laſt quart	2	8	33
Nove.	new moon	9	19	15
	Firſt quart	17	23	10
	full moon	25	3	41
	laſt quart	1	18	22
Dec.	new moon	9	13	28
	Firſt quart	17	17	8
	full moon	24	14	24
	laſt quart	31	7	40

The Golden Number in the Epact is 10, the Romane Indict 4, the Sundidayes letter E, late winter 7 weekes 4 dayes, Quinquageſima or Shrovetneſday the 16 of February, Eaſter the 6 of Aprill, Aſcention day the 15 May, Whitſunday the 25 of May, advent the 30 November, this yeare will appeare 4 Eccliſpes, 2 in the Sun, and 2 in the Moone, the firſt in the moone, the 4 of March, about noone, and ſhal be ſeen of them that live right againſt us, the Second in the ſun, the 20 March, at 0 a clock 15 minutes at, midnight, the 3 in the ſun the 12 of September at 3 a clock 15 minutes in the morning, the 4 in the moone, the 29 Auguſt, at 2 a clock 54 minutes, midnight, and ſhall bedarkned abont two thirdes, and ſhall laſt from the beginning to the ende 3 houres 24 minutes, this can be ſeen of us.

Almanack for the year 1682.
New-ſtile.

	Moon.	da.	ho	mi.
	new moon	8	8	58
	firſt quart.	16	8	53
January	full moon	23	0	44
	laſt quart	29	23	52
	new moon	8	4	4
	firſt quart.	14	21	30
Februa.	full moon	21	11	57
	laſt quart.	28	18	6
	new moon	8	21	20
	firſt quart.	16	5	43
March,	full moon	22	22	17
	laſt quart	30	12	55
	new moon	7	11	28
	firſt quart.	14	11	23
April,	full moon	21	10	6
	laſt quart.	29	7	17
	new moon	6	22	41
	firſt quart.	13	16	1
May,	full moon	20	22	49
	laſt quart.	29	0	21
	new moon	5	7	34
	firſt quart.	11	21	21
June,	full moon	19	12	29
	laſt quart.	27	15	22
	new moon	4	15	24
	firſt quart.	11	5	36
Jule,	full moon	19	3	4
	laſt quart.	27	4	29
	new moon	2	22	3
	firſt quart.	9	14	45
Auguſ.	full moon	17	17	38
	laſt quart.	25	15	2
	new moon	1	5	27
	firſt quart.	8	7	3
Septe.	full moon	16	10	6
	laſt quart.	23	23	32
	new moon	30	14	31
	firſt quart.	8	0	34
Octob.	full moon	16	1	36
	laſt quart.	23	6	30
	new moon	30	21	50
	firſt quart.	6	20	11
Nove.	full moon	14	16	9
	laſt quarr.	21	13	12
	new moon	28	15	54
	firſt quart.	6	16	49
Dec.	full moon	14	5	39
	laſt quart.	20	21	9
	new moon	28	9	4

The Golden Number is 11 the Epact 21, the Romane Indict 5, the Sundayes letter D, late winter 6 weekes 3 dayes, Quinquage. or Shrovetneſday the 8 Febr. Eaſter the 29 March, Aſcention day the 7 May, Whitſunday the 17 May, advent the 29 November, this yeare there ſhall appeare 5 Eccliſpes, 3 in the ſun, and 2 in the moone, the Firſt ſhal be in the ſun, the 7 February in the afternoone, and ſhal be-ſeen in the Northren America: the 2 in the moone, the 21 of Febr. in the evening, the 3 in the ſun the 3 Auguſt, in the fore noone, and be ſeen in the Southren Africa, the 4 in the moone, the 18 of Auguſt, in the Morning, whoſe Beginning, ſhall be ſeen of us ſome thing or nothing, and the ende ſhal be farther toward the weſt, the 5 in the Sun, the 1 September, in the afternoone, to be ſeen in Lapland.

A T A-

A T A B L E

For all Lovers of the Navigation,

Of the Eastern-Water, whereby commodiously to finde of each Folio all the Sea-Cards, Coasts, and the chiefest places, named in this Boock.

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4 The Vlie and Ameland hole in grand forme, as also the Easterd & Western Eemses. —— 6
5 The Wats, as also the Weser, Elf and Eyderstreams untill Hever —— —— 6
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8 The Coast of Norway, from the Pater-noster till Neus. —— —— 32
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First

OCEANUS OCCIDE

AFRICA

PARS.

HISPA

FRANCIA

BARBARIA

Genehoe

Marocco

Barbarya

Sardinia

Sicilia

I. de la Flores

Cuervo

Fayal

I. del Pico

Tercera

S. Maria

S. Michiel

I. Brava

S. Antoms

I. S. Nicolas

I. de S. Tiago

I. del Sal

Ferro

Palma

I. Teneriffa

I. Madera

Porto Santo

Canaria

Fortseventura

Alegranca

Pascaart
van
EUROPA.
Als mede een gedeelte van de cust van Africa.
t Amsterdam.
By Thomas Jacobsz op 't water
in de Lootsman.

I A S I S

GROENLAND.

Bus

Fogelskeren

Ys land

Rekol

Walkas

Yrlandt

Schotland

Engeland

De Kimmen

SWEDEN.

LAPLAND.

Spits bergen

Noord kyn

Nova Zemla.

Duytsche mylen 15 in een graat

Spaensche mylen 17½ in een graat

Eng. en Fra. mylen 20 in een graat

1

51 52 53 54 55 56 57

ENGE LANDT.

Edenberg

Northumberland

Nieuwe Steel

Lincolne

Yorcke

Chelsy

Arundel

Londen

Essex

Norfolk

De Hoofden

Flandria

Brabant

Holland

Antwerpen

Rotterdam

Amsterdam

Friesia

Groningen

Emden

Emderland

Bremen

Keydingerland

Hamborg

Lubeck

Wilmar

Rostick

Straelsund

Rugen

Pomeren

Holstatia

Jutland

Fuhnen

Zee land

Schoonen

Blecking

Wismar Bay

De Vlackte

De Bergh Vergaen

Fulee crake

Flamborger hooft

Dreadfull

Duytsche Mylen 15 in een Graadt

Spaensche Mylen 17½ in een Graadt

Engelsche en Franse Mylen 20 in een Graadt

58 59 60 61 62 63 64

Orcades I.

Hitlant

Fula

Noordwest heeck

S. Magnus suyerd

Pettoge

Ratterburg

Swinborgen hoofd

Lanfoyt

Wallsen

Welscheren

Felro

Blaamie sont

Olsie of Oust

De Kimmen

Vroyen Klipgat

Olde Zyt

Oranje

Wsiers

Schuytengat

Bommel Sandt

Sandt van Bommelshoofd

Sack

Calmer Sandt

Pape Sandt

Crayns fioert

't Groot Eylant

Telle fioert

't Zandt

Bergen

Sandtripkt

Racher

Oosterre

Suyd fioert

Wilt sandt

Arm sandt

Swarthoet

Middelhoeck

Noordhoeck

't Lant van Stadt

Swyren

Eylanders van Vlissingen

't Hesen

Breesant

Luyckz Sandt

Eylandenbaen

Roemsdael

Roemsdaelse Schuren

Stavel Os

Swarte Os

Gryp I.

Vlieter

Schuytengat

Vlieter

Ouden Tesker

Nieuwe Tesker

Texel

Mardom

Kandelaers

de Bue

Laerwyck

Vlashoes

Coperwyck

't Soen water

Ansloo

de Boden

Schat fil

Oosten

van Oosten

't Land Noord

D. J. N.

Dromen

Schoonen

Pas Caert van de

NOORT ZEE,

Verthoonende in zich

Alle de Custen en Havens,

daer rontom gelegen

t'Amsterdam.

By Casparus Loots-man, Boeckverkoper en Graadbooghmaker, opt Water inde Loots-man.

Sommige namen int Vlie met letters aengeteekent

a de Ietting
b Voor de Sloot
c 't Robbegat
d Noort Ietting
e Rees hoeck
f Dominicus oft Meinsen plaet

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsen Fra mylen 20 in een graet

Holwart

Ame
lant

Ballum

Slot

Hollum

Camper sand droog

Amelander gat

Cap

Der
Schelling

Hoorn

Mullands

Cap

Brandaris

Cap

Oosterhoorns gat

Oosterhoorns Plaet

Grind

Vlie
lant

Vlie hoet

Westeynd

Westerhoorns gat

Noordhoek

Westdroogh sant

Inschot

Everland

Het diepe water vande Pan

de Koog

de Waal

Oosterend

't Schilt

Schans

TEX
EL

de Burgh

de Westen de Hoorn

Smyters

Jut

Harlingen

Wynaem

Arum

Midlum

Pingum

Francker

Bolswart

Landragen

Worcum

Hinlop

Kolsaert

Ulrum

Boyerwolde

Buurt

Brei sant

Jacq vaer

Noorder ton

Middel ton

Zuyder ton

Drysdal

Mannicke sant

de Balgh

Repel

Wierin

Oostlander kerck

Elsewijer gen

Vrelshoef

Westlander kerck

't Marsdiep

't Mareneel tusschen

Helder

Knap

't Huyt

Ryckduyn

Blenck

't Dogh

Land diep

Sloot

Sloot

Sloot

Sloot

Pascaarte vande
ZUYDER-ZEE.
Texel, ende Vlie-stroom, als
mede t Amelander-gat.
t'Amsterdam.
By Iacob Theunisz. boeck-ver-
kooper inde Lootsman.

H O L:

N D T

D

Kumder
Lemmer
Blocksijl
Blanckenham
Swartesluys
Geelmuiden
Campen
Emmeloort
Ems
Elburgh
Vrck
't Val van Vrck
Enckhuysen
Medenblick
Hoorn
't Hoornicker hoy
Marcken
Monnikedam
Edam
Volendam
Scaerdam
Purmer
Egmont op Zee
Naerden
Muyden
Weesp
Amsterdam
Diemen
't Nieuwe Canaal door last van
E.E.H. Burgemeesteren der Stad Am
sterdam begonnen den 3 Augusti 1649

The first Part of the New

Lightning Sea Columne,

OR

SEA MIRROUR.

The first BOOKE of the

EASTERNE NAVIGATION,

Containing

The Deſcription of the North-Zea, the Coaſt of Holland, Freeſland, Holſteyn, Jutland, Meklenburgh and Denemarck to Valſterboen, in the Iſland of Rugen, and with all the Coaſt of Norway to Dronten, as alſo the Eaſt-ſide of England and Scotland.

The first Demonſtration,

Where in are Deſcribed

The South-Zea, the Vlieſtreame, the Vlie & Channell of Ameland.

WHen you ſaile from Amſterdam to the Fall of Urck, you muſt keep the midle of the Channell, inſayling to Tyoort, and from thence over Pampus with a ſhip off great draught, that draweth 10 foot or more: keepe Marken Church without to the land of Udam, called Schyteldoecks-haven, ſo long untill that the ſteeple of Zuyderwou come paſt Kinnigerbeurt, which are the houſes half way betwixt Schyteldoecks-haven & Durgerdam, goe then towards the land eaſt, until that the New Church of Amſterdam come about Durgerdam, kepe that ſo ſtanding until that the Church of Weeſp be come paſt the Houſe or Caſtle at Muyen, ſo that it do ſtand ſomewat nearer to Muyen then to the Houſe, kepe Weeſp ſtanding ſo, until that Edam come without the eaſtend of Marken. In this fareway it is a foot deper then if you ſail rigt troug.

For to avoyde Muyenſand, men where wont to bring the Houſes, which where wont to ſtand upon Tyoort, to the ſouthwards of the Heyligerſtee at Amſterdam, there by you may make ſome reckoning, they are good longſt markes. When Monnickedam is about the weſt-end of Schyteldoecks-haven, and the Houſe at Muyen betwixt Weeſp & the Church at Muyen, then are you thwart of Muyenſand. For to ſaile rigt throug over Pampus, then keepe the ſteeple of Diemen over or about the point of Tyoort ſo long as you can ſee Tyoort, that is a rigt longſt marke for to ſaile over Pampus.

When you are come thwart of the eaſtend of Marken goe then on northeaſt or ſomewhat more eaſtwardly towards the Fal of Urck, which is 7 leagues: when you are come with in a great league of Urck, you ſhal mete with a hard ſand, called the Houtrib, lying ſoutheaſt & northweſt thwart over the Farewaye; there is no more water upon it then upon the Flat of Wieringen, or of Freeſland you ſhal finde alſo deeper water there then rigt through. When Enchuyſen lyeth n. w. & n. w. & by weſt from you, then you are upon the Houtribbe. Before that you come againſt the ſand, you can by night ſee the fire upon Urck. When as Urck or the fire is more northerly then n. e. from you, & that you get ſhoaling, then that is certainly of the Houtribbe, for ſo you cannot come to neare the Enchuyſen-ſand. When you come from the ſoutwards, you are not about the Enchuyſen-ſand, before that the church upon Urck come without the little village of houſes, which is then eaſt & by ſouth, and e. ſ. e. from you: If that then you goe away n. w. & by weſt, or w. n. w. you ſhall runne cloſe alongſt by the ſide of the land. Whit a ſhip of great draught, bring the church a good way through the Houſes, untill that it ſtand eaſt ſoutheaſt from you, then goe bouldly on northweſt & by weſt, or keepe Medenblick without the point of the Ven, & ſo you ſhall not come to near neirher to ſand north ſhoale. Likewiſe if you come from the northwards, & bring Urck not more eaſtwardly then e. ſ. e. from you, then you can not take hurt alſo of the Enchuyſen-ſand. From Urck to the Buyes upon the Cripple and Hofſtede, the courſe is n. w. and by weſt, with that courſe you may runne all alongſt unto the ſouther-buye upon Wieringer-Flat. In turning to windwards, you may well bring Medenblick a little within the point of the Ven but when as Medenblick is without it, then you are in the rigt fareway.

Marke of Enchuyſer ſand.

Betwixt Urck & the Buye upon the Hofſtede northeaſt ſomewhat eaſtwardly from the Steeple of Enchuyſen lyeth a little Plate of hard ſand, lying towards the end of Enchuyſen-ſand, which is not deeper then the Frees-Flat, about to the eaſtwards of it, is the deepeſt water, but about to the weſtwards of it (by ſome called the Katte-gat) you ſhall beſoner about the hig Horne or the Enchuyſer-ſand, and it is good for ſhips that draw but little water.

Marks of the Buyes upon the Hofstede & Criple.

The thwart Markes of the buyes both upon the Cripple and Hofstede, are Groote-broeck and Hem (two sharp steeples) right one in the other, ande Warnis a little sharp steeple in Freesland to the south-side of the Cliffe of Staverne, then you have the length of these Buyes, which lye each of them in 3 fathom, the one on the east shoare, & the other on the west shoare upon the taile of the Cripple. There is in the rigt fareway, twoo foot lesse then five fathom, & soft ground. When the steeple of Medenblick commeth to the northwards of the house of Medenblick, so farr as the house is broade, then you are cleare of Cripple sand, & past it; goe then on n. w. & n. w. and by north to the buye upon the Creyl, according the winde & tyde shall be, the right farewaye there is deep: five fathom scharce.

The Creyl. South Creyl.

Thwart of the Creyl, in sailing out about the Creyl, in sailing in, that is a little within the Creyl on the north shoar, lyeth alongst the reach (towards the buy upon the Hof-steede,) a hard-sand or plate, called the south Creyl, upon which there is no more then 12 foot water, at low water, betwixt that Banck & the north shoare, it is 3 fathom deepe, & soft ground, and so the southwards, or the westwards of it, four fathom and an halfe. When Mirnes, a little flat steeple in Freesland, commet over a long countrie house to the southwards of the Cliffe of Staverne, then you come rigt thwart of that foresaid plate.

Marck of the Creyl.

The markes of the buye upon the Creyl, are the sharpe steeple of twisch over the Corne-mill to the westwards of Medenblick, & that little flat steeple of Mirnes to the south-side or east-side of the Cliffe. The rigt fareway there is four fathom and an half, and 5 fathom deep, soft ground, the buye lyeth in 4 fathom, if need require, men may runne wel a cables length about to the eastwardes of it.

Freese-plate.

From the buye upon the Creyl, to the buye upon the Freese-plate, the course is north and by east: When the steeple of Twisck commeth a little to the northwards of Medenblick, then keepe them so standing, so long as you can see it; and then you shall not saile within any shoales betwixt that plate and the Creyl.

Betwixt the buye upon the Creyl, and the Freese-plate, on the west shoare, alongst the Reach, lyeth a hard sand, called Monick-sand, which men may be foul of, if they runne somewhat to farre over to the westwards.

Monik-sand.

When you are come about the Creyl, you may goe on north & by east (with a shippe that draweth but litle water) over the taile of Broad-sand, rigt to the buye upon the sand called West-Worckum, but with shippes of great draugts, you must keep the right farewaye. For to finde the deepest water upon the flat, bring Pendragen, a little flatte steeple (standing to the westwards of Worckum) to the westwards of a little village, which standeth also to the westwards of Worckum, and saile so right with it, that is a good longst marke of the buy upon the Freese plate, & so you shall runne right with the buy, when as that Warnes and Mirnes come one in the other, to the northwards af Staveren, then you have the length of the buy, which lyeth on the west-side of the Plate, you must runne alongst to the westwards of it, there is the deepest water; when you come from the northwards, you migt saile within the Freese-plate on the east shoare.

Being past the foresaid buye upon the plate, goe on north northeast untill that Pendragen come betwixt the little village and Voorwolde. If that you have then the Cliffe throug Staveren, then you have the deepest water upon the shoalest of the flatt, then men runne commonly a little more northerly unto the buye in the Bight, and alongst to the westwards of it, which lyeth right in the farewaye, in 16 foot, but alongst to the eastwards of the buye is the deepest water, the farther into the Bight towards Frees-land the deeper. The marke of this buy, is the little flatt steeple of Mirnes on to the southwards of Molqueren. Bring that foresaid little flatt steeple in Molqueren, & keepe it so standing, and then you come in the fareway of the buy of West-Worckum, that is a very good marke, when the buyes are taken away.

Buye in the bigt

The old thwart marckes of the buy in the Bight, are Mirnes, Molqueren, Hemelum, and a little long village, when they stand in four parts. Betwixt the buyes upon the Freese plate, and in the Bight, is the shoalest of the flatt.

When the buy in the Bight is on your broad-side, then goe on north and by west, somewhat more westerly, into the buy of West-Worckum, which lyeth on the east shoare in sixteen foot at low water, upon these marcks; a little sharpe steeple, far within the land, called Harich, commeth over a little village, to the northwards of Hinloopen, called Dertwisch, the right deepe thwart of it is 3 fathom. The old marckes are two villages next to Mackum, upon the water-side, standing n. e. of from it, when these stand a little asunder, one from the other, you see yet two little steeples somewhat to the northwards of Bolswart, allmost one to the other, neare about as the other upon the water side stand asunder, the one is called Idsegahuysen. The thwart marckes are a high house ou the east-end of Coudom, that commeth within a capstane barres length to the south-end of Hinlopen. From thence to the buy upon Ygelhoeck, the course is nord, the markes there of are, a little sharpe steeple with the first long village to the northwards of Worckum, called Geest, when that little steeple commeth in the innermost swampe of that long village, then you have the buye, that is a good thwart marck: the longhst marcks are, the sharpe steeple of Pingom over the flat steeple of Coorenwaert upon the water-side, and Pendragen to a little house to the northwardes of the village with the swamp, or when the mill of Staveren standeth betwixt the towne and Blockhouse of Staveren, these are al good longst markes of the buy upon Ygelhoeck.

From Ygelhoeck to the Middle-ground the course is north, the right deepe in the Middle-ground is 7 fathom in the farewaye betwixt West-worck and Ygelhoeck the rigt deep in 4 fathom, soft ground, the east shoare is flatt and the west-shoare steep. The buy of the Middle-ground lyeth upon the marcks: the two sharpe steeples Arun & Pingom one in the other about n. e. from you: or Bolswart right to the northwards of a Countrie-house, to the northwards of Mackum, these are good thwart marchs of the Middle-ground. The longst marckes are; Kinswaert (that is the runner) commeth behind the Church of Surich, then you are rigt in the farewaye. The Church of Surich standeth upon the water-fide, upon a point that lyeth out about n. e. and by north from the buy, or when the flat steeple of Wynaem (to the northwards of Harlingen) commeth betwixt Middlum and the east-end of Harlingen, then you are right in the Middle-ground, on which side that Wynaem standeth neareft, that shoare you are also neareft unto, the west shoare is steep: the east shoare indifferent flat, you may runne over it in three fathom, & come againe five fathom towards Friesland. From the Middle-ground outwards to the Flye, you can sayl within no tailes of sand on the west shoare.

Being past the buy in the Middle-ground, then goe on n.n.w. unto the buy upon Swanebalgh, which lyeth in three fathom on the east shoare, the thwart marcks there of are Bolswaert over a little short house to the soutwards of Cornwaert. When you runne over betwixt the buyes of the Middle-ground and Swanebalg on the east shoare more easterly then in 3 fathome. That you come againe in 4 or 5 fathom, you might (in sayling out) sayl behind the shoals of Swanebalgh, or when you are bound in behinde the shoals of the Midle-ground, the west shoare twart of this, you may sound in 4 fathom, or 3 fathom and an half, over against the buye upon Swanebalgh, on the west shoare is good ground for to anchor in.

From the buy upon Swanebalgh to the buy upon Schuytesand the course is northwest somewhat northerlye: the thwart marckes there of are Wynaem over the higheft part of Harlingen: the longst markes are, Bolswaert the northwards of the Sluys, which lyet to the nortwards of Woens, this buye lyeth in six fathom on the east shoare, upon a taile or point, which you might sayle within when you sayle out, the right deepe thwart of it is seven and eight fathom, the west shoare is indifferent flat, which you may sound in four fathom, the east shoare is steepe but a little without the buye it is flatte all alonghst to Keeshoeck, & you may sound it all alonghst unto the Sloot. In saylingh up, you might sayl within the west shoare over again Schuytesand, or a little to the southwards of it in three fathom, or three fathom & a half unto a Deadbalg, behind a taile of

of ſand, called the point of the Waert, but keeping in 4 fathom from that ſhoare, you cannot take hurt of it. In ſailing up with a forfloud, keep the eaſt ſhoare, or els you ſhould be lightly carried ther with into the foreſaid balgh, behind that Waert, before jou ſhould be aware of it. Upon the point of that waert ſtandet a drift beacon, & two to the northwards or the weſtwards of it, which men do call the beacons of Claesomen, & to the ſouthwards of it ſtandeth a beacon upon Dominicus plate, or (as the Pilots de name it) Meynſen plate. The marks for to ſail alongſt this long reach are: Mackum with a mill upon the water ſide, and a village with a little flat ſteeple to the ſouthwards of Mackum, called Idſegahuyſen, when Pandragen commeth betwixt Mackum and that village then you ſhall go cleare of that foreſayd taile or Deadbalg: If Pandragen come neareſt to Idſegahuyſen, then you are to near the foreſaid taile or plate, or if Pandragen come neareſt to Mackum, then you are to neare the eaſt ſhoare.

From Schuyteſand to the buye upon Keeshoeck, the courſe is w. n. w. or northweſt and by w. according as the wind & tide ſhall be. In that long reach goe little more then halſtides alongſt the deep, the afterfloud and fore-eb fall thwart over there to the weſtwards, & the after-eb & forefloud right contrarie to the eaſtwards. The marks of the buy upon Keeshoeck, are Franiker ſteeple betwixt the mill and the towne of Harlingen, or to the maſtes of the Ships which lye in the haven.

This buy lyeth on the eaſt ſhoare, the right fareway thwart of it is 8, 9 and ten fathom deep.

Betwixt Keeshoeck and Schuyteſand, or betwixt the beakons of Claesoomen & the point of the water lyeth a little narrow plate alongſt the reach, allmoſt in the middeſt of the fareway neareſt to the w. ſhoare, where upon it is not deeper then four fathom, or 3 fathom & an halfe, when men runne to windewards they are over it with 2 or three eaſts of the lead.

Weſtwards from the buy upon Keeshoeck lyeth the Old-Flye, it lyeth in firſt ſ. ſ. w. and then forth to the buy upon the Neſſe in the Teſſel-ſtream. The after floud with the fore ebb fall in verie ſtrong into this channell. In ſailing upwards you might ſail within it in 4 fathom. The marks of it are, the ſteeple of Franiker right to the ſouthwards of the ſteeple of Harlingen. From thence outwards of unto Schieringshals the weſt ſhoare is verie ſteep, in 8 fathom you ſhall be cloſe by the ſhoare. The fareway betwixt theſe buyes, and thwart of the buye upon the Ellbowe is 10 & 11 fathom deep.

From Keeshoeck to Wolfshoeck the courſe is firſt n. w. and n. w. and by north unto the buye betwixt them both, by ſome called the Schor-tun & by the Pilots the buy upon the Elbowe: and from thence to the buy upon Wolfshoeck, north, or ſomewhat more eaſterly, which lyeth in 4 fathom on the eaſt ſhoare.

From the buy upon Wolfshoeck unto the buy unto Schieringshals the courſe is n. w. and n. w. and by north according as the winde and tyde ſhall be. To the northwards or to the eaſtwards of the buy upon Wolfshoek goet up a broade bigt ſ. e. farre into the groundes, ſo deep as the rigt fareway, called the Inſchot, comming in you migt ſaile within in 7 fathom, the forefloud falleth from Schieringshals verie ſtrong into it, and the fore ebbe to the contrarie, very ſtrong out of it upon the taile of Schieringshals, where by maine ſhips are miſcarried.

Schieringshals is a tail of ſand, which ſhooteth of from the weſt ſhoare, upon it lyeth a white buye in 3 or 4 fathom, comming in from without, men migt ſaile within in 6 fathom, the rigt deepe betwixt Wolfshoeck & Schieringshals is 9 fathom.

From Schierings-hals to Longſand, the courſe is n. weſt and north weſt and by north, betwixt them both on the weſt ſhoare it is ſhallow water, and the beſt road of al the Flye ſtreame, there goeth alſo a little tyde. The rigt deepe is 8, 9 & 10 fatom, Longſand men migt ſail within it on the eaſt ſhoare, inſailing up, but if they keep them ſelves in 7 or 8 fathom, they ſhall not come to neare neither of Longſand not Schierings-hals. When the eaſtermoſt houſe upon Grindt commeth a little to the northwards of the weſtermoſt, then you have even the lengt of the buye upon Longſand. From Longſand to the Sloot the courſe is forth n. n. w. the rigt deep is 10 fathom, or men runne alongſt by the beakons upon Crakeſand untill they come in to the Sloot. Monkſloot.

The Iſland Flie-land is 3 leagues long, & a land very eaſy to known: upon the eaſt-end lye hig white ſand-hilles; and to the weſtwards it is a land ful of ſhort low hommoks or knobbs. Upon the weſt-end ſtandet a Church with a mill to the eaſtwards of it. From the weſt-end ſhooteth off a riffe a good wayes into Sea. To the weſtwards of this riffe, betwixt Flieland & the Eyerland goeth in a deep, called the Weſtergat, or Weſtfiel-deepe which is not for great ſhips, but onely for Fiſher boates, there is not above 8 or 10 foot water. Upon the eaſt-end ſtandet a mill with a Cape, the which are markes for to avoid the grounds which lye before the Flie.

The eaſt-end of Flieland, & the weſt-end of Teſſel lye 8 leagues aſunder.

Eaſtwards from Flieland lyeth der Schelling, & is about 3 leagues long. Upon it ſtand two Churches & upon the weſt-end there of it hath an hig ſtubbed Tower, called Brandaris, & by it ſtandet a Mill, about the middle of the land ſtandet a ſharpe ſteeple called Midlands. Eaſt there of ſtandet another Spiri ſteeple, called the Hoorn: betweene Midland, & the Hoorn ſtandet a mill. On the eaſt-end there lye little hills or downes. Upon the weſt-end ſtandet a Ligt-houſe upon which there is fire at night, & two Capes; the biggeſt ſerveth as a Marck of the eaſterne Booms channell, & the leaſt for the weſterne Booms-channell. Der Schelling.

Storte-Melck.

TO ſaile in to Storte-Melck (that is the Land-deep of Vlieland) bring the Cape that is on the eaſt-end of Vlieland and the Ligt-houſe together, they ſhal then ſtand from you ſ. ſ. e. or a little eaſterly, ſaile there upon, & you ſhall fall rigt upon the firſt buy, that lyeth on 5 fathom, on the outermoſt of the long Banke, the Banke is on the nord-ſide reaſonable plaine, ſo that thoſe two come out of the north may run there by upon the lead in 5 or 6 fathom, and ſo likwiſe findt the outermoſt Buy. If neede requite men may run over the end of the long bancke, but not farr eaſtwards of the outermoſt buy in 3 fathom or 18 foot, towards the ſhoare throug not eaſtwards of the ſecond Buy, but a good way weſtwards, lyeth rigt ſouthwards the point of another ſmall taile, where upon neere the buy is no more then 11 foot water, betweene this taile and the long banke runneth a Chopp in the ground to the eaſtwards off 5 fathom deepe. It happenet ſometimes that ſhippes comming over the end of the long bancke and finding againe deeper water, doe thinke themſelves to bee in the rigt depth of Stortemelck, where upon they luffe but runne in the foreſaid Chopp in betwixt the two foreſaid tailes, & if with a weſterly wind not without greate danger, and yet muſt run out againe backwards. Comming out of the weſt alongſt by Vlieland in 4 or 5 fathom, you ſhall not miſſe to run the foreſayd outermoſt buy in ſight: Hee that in the night falleth about Stortemelck let him bringht the Light-houſe ſ. ſ. e. from him, and run there upon till hee come neerer the ſhoare hee ſhall run to the weſtwards of outermoſt buy, within Stortemelk there lye 7 blacke buyes with one white buy, ſailing in leave all the blacke on the larboard & run olongſt the ſouthwarde, leave the white on the ſtarboard, even as all other white buyes as well in Booms-channell, the jetting as upon the Vlieſtream.

In comming from Stortemelck you muſt ſomewhat ſhun the ſhoar for it hath a ſhoale rigt over againſt the firſt Buy.

The ſecond Buy called the outermoſt Drooge drie lyeth on 11 foot upon the ridge or the ſhoaleſt of the channell, ſouth there of is alſo not more then 11 foot water, and a litle further againe 16 foote deepe. The third is called the innermoſt Drooge drie lyeth on 16 foot the rigt depth betweene both is 3 fathom. The fourth is called Heykhoek, betweene this and the third the rigt depth is in 5 fathom, over againſt the fourth lyeth the white Buy on the ſtrand, hard by runneth a little taile from the ſhoare, which you may under ſaile when you ſayle outwards to this white Buy,

or to the third from without it ſtretcheth e. n. e. in, from the fourth to the fifth allmoſt eaſt, & further more & more ſoutherly. The fifth Buy is called the outermoſt corner Buy, the ſix the midlemoſt corner Buy, & the 7 or laſt the innermoſt cornerbuy, betwixt the outermoſt & midlemoſt corner buy, the next outermoſt runnet a taile from the ſhoare wich you may under ſaile from without, this groweth ſometimes allmoſt as farre as the Buy, then breaket the depth by the wall againe throug & ſcoures the taile wholly to the north ſhoare, from the innermoſt buy men run forth alongſt by the ſtrand of Vlieland, or ſouthward to the buy upon the plate.

Ooſter-Booms Gat.

THE Ooſter-booms Gat is altered very much, the Schorre-grounds or as ſome calls them now a dayes Peters-grounds, are over growne verry neere to the ſhoare or ſtrand of the Schelling: Before it lyes a Bank or a little ſandplate, betwixt the a foreſaid Schorre or Peters-grounds & the ſtrand is according to the Teſtimony off Maſters (or Shippers) which uſally ſaile in & out with their Smacſhips: about the halfe off a ſhipps length broad, and about two ſhipps length long, is upon the plate or Banck 5 & 6 foote, & betweene the Banck and the ſtrand 7 and 8 foote, but betweene the Schorre or Peters-grounds well 11 or 12 foot water; So that if heere lay on the corner of the Schorre or Peters-grounds a runne or Marcke, to decerne or finde this entrance or gapp, one could then verry eaſily ſaile in & out with a Fluyt-ſhipp, but ſeeing the place is not marcked with a runne, it is judged unfit to bee uſed by great ſhipps, & onely navigable for ſmacks; Comming from the eaſt, & haveing Midlands-church, ſtanding upon the Schelling, ſ. ſ. e. from you, then you are neere about this ſaid banck, and ſeeing there is nothing elſſe to be written off this Ooſter-booms Gat, we wil leave it & paſſe over to the deſcription & ſituation of the Weſter-booms Gat.

The Weſtern-booms Chanell.

TO ſaile into the Weſterne booms Chanell comming from the weſt, bring the cape & Tower of Brandaries togeter, that is then eaſt & eaſt & by ſouth from you, there upon you muſt run to find the outermoſt buy, there is ſix fathom water, keepe then the Cape & Tower ſo ſtanding till you come to the ſecond buy, bring then the Tower a great handſpikes lengt to ſouthwards the cape, & ſaile there upon then you ſhall ſaile betwixt a white and black buy, there is it upon the ſhoaleſt 17 foote with low water, from thence you come to 6 and 7 fathom, & then you come againe it the rigt Booms Channell, on the north-wall it is the deepeſt, it is wide & broad that you could wel vere it up, the ſtream runs there of it ſelfe rigt in ſtill weather.

The letting. To ſaile into the letting comming throug the Robbe-gat, about the Roſyne plate, you muſt run towards the buy upon Langeſant, & forth betweene the white & black buy, leaving in ſailing up the black on the larboard and the white on the ſtarboard till you come by the beakons upon the Nakens, you may eaſly ſee from buy to buy, ſaile then forth alongſt the beakons upon the Nakens e. ſ. e. on till Brandaires commeth hard by Grind, but not upon it, keepe them ſo ſtanding, & run ſouthwards on & you ſhall ſaile upon the buy on the taile of Hendrick 't Jaerts plate, theſe you may under ſaile on the eaſt-ſide, leave them on your larboard, & run on weſt away ſ. ſ. e. to the laſt buy that lyet upon the ſouth-point of the foreſaid Hendrick 't Jaers plate. Over againſt the beakons upon the Nakens lye on the ſouth wall two white Buyes, the moſt eaſterly lyet upon the taile, which ſailing of you may underſaile ſouthwards betweene the two laſt blacke buyes by the weſt coaſt is the roade where the ſhips (which are boud to Harlingen) ſet on to lig ten.

NOTE.

All the depths here before rehardſe, as well of Stortemelck as of the Boomkens-gat, are ſaid of the loweſt water, at halfe flood is 3 foot deeper, it floweth upon theſe at the foreſaid places with a common tyde five and a half or ſix foot up and downe. The numbers of the depths ſet downe in the Carde of the Flye and Ameland-gat, are to be underſtood of feet: as for example, by the outer buy of the Boomkens-gat ſtand 66 that are 66 foot, or 11 fathom, ſix foote being reckoned for a fathome.

Ameland-Gat.

TWO leagues to the eaſtwardes of the Schelling lyeth Ameland, lying e. n. e. & w. ſ. w. four great leagues. Upon the weſt-end of Ameland ſtandet a Cape, & a great thik flat ſteeple, called the Hoelme, the rooſe of this church is, broken off but the after front with the rooſe ſtandet above the ſide walls, to the eaſtwards of the church of Hoelm ſtandet a Mill, with a houſe to the weſtwards of the Mill, alſo a broad flat Tower. About the place where Midland-church was wont to ſtand, lye 3 or 4 white ſandhilles, which are low, flat & long, towars the eaſt-end it is knobbie lant, with white amongſt it. From the weſt-end of Ameland runneth off a riff, almoſt 3 leagues into Sea, called Born-riff, which is upon the outer-ſide verie ſteep: come no nearer it then in 12 fathom, comming from the eaſtwards you cannot ſaile whithin it, but in ſailing alongſt by it in 7 fathom, you ſhall not run a bowles eaſt a long without it. Bo riff.

For to ſaile into Ameland-gat, comming out of the Sea, bring the cape upon the eaſt-end of the Schelling, right over the ſteeple of Horne, which ſhall then ſtand from you ſouth ſouthweſt or a little more weſterly, ſaile in rigt with them, untill that the Cape upon Ameland, & the ſteeple of Hoelme are one over the other, then leave the firſt markes, & ſaile in upon the ſecond, and you ſhall finde the outermoſt buye, which lyeth ſomewhat within the outermoſt point of Born-riff. Comming from the weſtwards, run alongſt by the ſtrand of the Schelling in 5 or 6 fathom & an halfe at low water, & you ſhall not ſail to ſaile rigt upon the outermoſt buye, & then cape & ſteeple upon Ameland ſhall alſo come one over the other, & ſtand from you eaſt, or a little more ſoutherly. Comming alongſt by the Schelling in 4 fathome, you ſhall not ſaile within the Koggedeeps-ground, over againſt then lyeth the firſt buye on the ſouth-ſide of Bornerif, run alongſt to the ſouthwards of it, keeping the cape and ſteeple one over the other, untill you be paſt the ſecond buye, which lyeth thwart of the weſt-end of Kampersand, the fareway betwixt theſe two buyes is 5 and 6 fathome deep. Ko de gr Ka pe la

Being paſt the ſecond buye, bring the ſteeple ſomewhat to the northwards of the Cape, and goe on e. n. e. towardes the third buye upon Gerriſhonden, for to avoide the plate which lyeth off from the ſouthſide, towardes Bornriff, on it lye two white buyes, the firſt over againſt the a foreſaid third black buye, the other over againſt the fourth black buye, lying from the third about ſoutheaſt, leave the black buyes all on the larboard-ſide, and the white on the ſtarboard-ſide, and run through ſo betwixt them both, the plate is on the north-ſide indifferent flat, ſo that you may run tot it upon the lead, reckon wel your tydes, eſpecially be carefull of a fore-ebbe, which falleth very ſtrong over that channell north northweſt into Sea over Bornriffe. Betwixt the ſecond and third buye in the fareway it is eight and nine fathom. Betwixt the third and the foreſayd plate ſeven fathom. Being paſt the fourth buye, both ſides are very ſteepe, & the farewy 8, 9, 10 and 12 fathom deepe, goe then in ſ. ſ. e. untill that the ſteeple of Holm come over the ſouth-point of Ameland were the boars lye, & then you come in the bight, where it is on the ſouth-ſide flat, and good anchooring in five or ſix fathom, the north ſhoare is very ſteepe. Go bo

For to ſaile further into Horſen, goe away from the higt e. n. e. alongſt by the ſouth-ſide in 5 or 6 fatum, ſo long untill Heynooms chamber (being a red tyled houſe) come a handſpikes length to the northwards or to the eaſtwards of Hoelm-church, anchor there in 5 or 6 fathom, you ſhall lye there in good ground, & ſheltred for all winds, alſo there goeth little tyde; in this fareway it is 12 fathom deep, the north ſhoare is the very ſteep. Theſe foreſaid depths (like as alſo thoſe of the Flie) are ſaid of low water.

Of

Dollart

Eemden

OOST-FRIES LANT

GRONNINGER LANT

Norden

Duytsche mylen 15 in een graet

Eng en Fra mylen 20 in een graet

Pascaarte vande

EEMSEN

Als de oude ofte weſter Eems en de ooſter Ems

Sommige namen op de Eems met letters

Namen van sommighe plaetsen in het Vlie met letters aengewesen

a	't Robbe gat	d	Voor de Sloot
b	Speckhoeck	e	de Ietting
c	Noord Ietting		

Harlingen

F R I E S L A N T

Grund

D E R S C H E L L I N G

Hoorn

Caep

Midlands

Brandaris

Caep

Vierkoet

Caep

Oosser hooms gat

V L I E L A N D

Pascaarte van 't

U S I E,

Als mede een gedeelt van t-Amelander gat

't Amsterdam.

By Iacob Theunisz opt water in de Lootsman.

Duytsche mylen 15 in een graet

Eng. en Frat. mylen 20 in een graet

Pascaerte vande

EEMS, ELVE,

Weser, Eyder, en de Hever: als mede hoe die sel: vighe gaten van Heylighelant gheleghen syn.

t'Amsterdam.

By Iacob Theunisz op 't water inde Lootsman.

Namen sommiger plaetsen op de Laa en Weeser met letters aengheteekent

a De Steenbanck
b Bakens op 't Wout
c Aenten of Leppe plaet
d De Laa ton
e Ton op't Hooft
f Ton uyt Coers
g Uellerton
h Ton op Bollensyl
i Bakens op Bollensyl
k Eerste ton op't Vlack
l Het Vlack
m Cassalmans sant

Op de Elve

a De Schorton
b Coolton
c Witte ton op de nieuwe gronden
d Hoeck ton
e Reed ton
f Witte ton op de Steert van Roomaerlo plaet
g h De tonnen op Pelgroms sant

Op de Eyder

k De eerste Eyder ton
l Ton op de Kont
m Baken op de Kont
n Twaren Hoedtrick
o o Bakens Eyder Weser Hoedtrick
p De prijnaet de Elve
q Roedemer sant
r Eylandeke Bullooysden
s Baken op de Hulck

KEYDIN GERLANT

Buhl

Waddens

Eyder

Lancwoerle

Wichwert

Bollensyl

Mysselwaerde

Oldenbroeck

Grom

Reisetuttel

Reisaken

Pelgroms

Noordmans

Vleck

Middelplaet

Noorder Breclingh of oosterTil

Noorder Gronden

Vlacte vande Noorder gronden

Zuyder Eyp

Noorder eyp

Blauwort

Steert of vlacte van Blauwort

De Eyder

Oude Lantdiep

Scholver Hoec

Heylige lant

Middorp

Oldenwerde

Busen

Zuyldyck

Ditmarsen

Wyfunghaerde

Noordhey

Schulper zyl

Tabingen

Ees

S Pieter

Tonningen

EYDER

Harrebleck

Grudingen

Oosser Hever

Husum

Hudsede

STEDT.

Suydbalg

D. Oudd

Hever

Namen sommiger plaetsen op de Eemsen

a Gelsjacker
b de Meeuw
c de Wolla
d de meeuw
e Borckom
f Borckum
g Nuyberts
h Brouwers
i Baeckeo

Groeninger-
land

FRIESLAND

Namen sommighen plaetsen op de Schol-
halch. Lauwers ende Schilte

a Noue sant
b de Perdemarckt
c de Knockebalgh
d Symons sant
e Bosch sant
f t Schilt
Legers gat
Steertvoor legers gat

Emden
Norden
Ysschendelger
Reyde
Terminte
Ottersum
Farmsum
Dollart
Wirdum
Molbrerde
Burum
Leck
Lens
Hoorhusen
Uthusen
Ydarsum
Oostmerhorn
Grist Tief
Pilsum
Reysum
Knock
Borckum
Rysum
Bierum
Ysselerbroeck
Ysselerbroeck
Ooster Ems
Ooster Ems
Ysselerems
Noordbroeker gat
Noordwester gat
Hermonikoog
Baltrum
De Hom
Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een graet
5

Of the Tydes.

At Amſterdam a n. e. and ſ. w. Moone maketh the higheſt water.
At Horne, Enckhuyſen and at Urck, a north & ſouth Moone.
Betwixt Cripple ſand and the Creyl, a n. & by w. & ſ. & by e. Moone.
Upon the Frieſe and Wieringer-flat, a n. w. and ſ. e. Moone.
In the Flye and Ameland Gat a ſ. e. & n. w. Moon maketh high water, before the Flye the flood falleth to the eaſtwatds thwart over the grounds, almoſt untill halfe flood before it ſetteth into Boomkens Gat. Likewiſe the Ebbe to the contrary falleth to the weſtwards thwart over the grounds, almoſt until halfe Ebbe, before it ſetteth rigt out at the channell. The after-flood turneth about with the fore-ebbe & fal alongſt Flyeland out at Storte-melck, but the foreflood runneth rigt into Storte-melck.

Of the Depths about theſe Places, and in what Depths men may ſee the Land.

The Iſland Flyeland, the Schelling and Teſſel, men may ſee in 15 & 16 fathom. Thwart of the Schelling the ground is white ſand.
The ſteep grounds or Peterſand & Born-riffe, are very ſteepe on the off-ſide, cloſe by them it is 12 or 13 fathom deepe.
Ameland men may ſee in 12 fathom, the depth of 13 and 14 fathom runneth farr off to Seawards, ſo that men cannot ſee it in 15 fathom.

Courſes and Diſtanſes.

From the Flye to the Naes, north & by eaſt a litle eaſterly about 85 leagues
From the Flye unto the Riffe in 16 fathom north and by eaſt 66 or 67 leagues
From the Flye to Boevenbergen, the courſe is n. n. e. or a little more eaſterly about 69 leagues
From the Flye to Rinkopper or Numer-deep, n. n. e. or a little more eaſterly about 58 leagues
From the Flye to the Iſland Silt, on the Coaſt of Jutland, the courſe is northeaſt 46 leagues
From Born-riffe to the Naes, north or a little more eaſterly 82 leagues
From Born-riffe to Holy-land n. e. and by eaſt 30 leagues
From Born-riffe to Wranger-oogh, e. n. e 27 leagues
From Born-riffe to the Weſter Eems 12 leagues
Peterſand, or the ſteepe grounds & Born-riffe, lye n. e. and by eaſt, and ſ. w. and by weſt foure leagues a ſunder.
From the Flye to the northeaſt-end of the Broadfourteens, the courſe is w. n. w. 8 leagues
From the Flye to Tinmouth or New-caſtle, w. n. w. 88 leagues
From the Flye to Hitland, the courſe is n. w. and by north, ſomewhat northerly 156 leagues
From the Flye to Fairehill, n. w. and by north about 151 leagues
From the Flye to Schuytenes, the courſe is north and by weſt, ſomewhat northerly 106 leagues

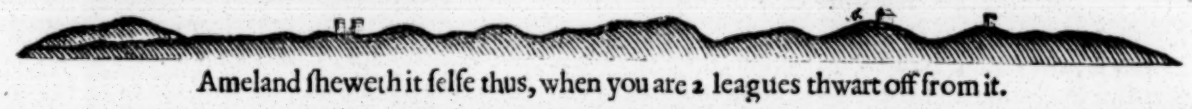
How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Schelling, when you ſaile alongſt by it about 2 leagues from the land.



Thus ſheweth Flyeland, when you are 2 leagues thwart off from it.



Ameland ſheweth it ſelfe thus, when you are 2 leagues thwart off from it.

The ſecond Demonſtration,

Where in

The ſcholbalgh, Lauwers, both the Eemſes, the Weſer, the Elve & the Eyder, and other channels of the Sea betweene them.

Schiermonck-oogh.

SChiermonck-oogh lyeth from the eaſt-end of Ameland eaſt ſomewhat northerly 3 leagues, it is a little low plaine Iſland, about 2 leagues long, there ſtandeth no ſpeciall thing upon it to beknowne, but upon the weſtend two capes with a white ſand-hill, otherwiſe it is all with low blackiſh ſand-hils or hommocks (but higher then upon the eaſtend) and meingled with wite: the eaſt-end is a long flat ſtrand, with little low roug ſand-hills. When you bring the two capes upon the weſt-end one in the other, and runne ſo in, you ſhall finde the outermoſt buye, which lyeth without the channell, at ſea, in 7 fatum or there abouts. Sometimes there lye two and ſometimes three buyes in the channell, which you muſt leave on the ſtarboard ſide, and run alongſt to the eaſtwards of them, being come within the channell, you ſhall find alſo beacons on the weſt ſhoare, which you muſt follow all along, until you come to Oſtmerhorn, where you may anchor. The lying in, and depths of that channell do alter and ſhift oftentimes, and ſometimes much within a ſhort time, ſo that there is no certaintie to bewritten off it, where unto men might truſt.

Foure leagues to the eaſtwards of Schiermonck-oogh lyeth the Iſland Rottum, and betwixt them the little Iſland the Boſch. Afew yeares paſt throug, ſetting of ſpyrie graſſe or heath, there was grown two or three handſome ſand-hils, but are now againe altogether blowne away, and altered into a plaine flat ſtrande, which the ſea at high flouds doth al together runne over.

Betwixt theſe Iſlands the Boſch and Schiermonck-oogh was woont to goe in a channell of indifferent depth, called the Lawers, which is now moſt caſt to, by the foreſaid ſtrand of the Boſch, which is grown in all alongſt unto the oogh, ſo that there is no more remaining then a narrow & ſhoale creeck.

To the eaſtwards of the Boſch goeth in the Schille, alſo an altering & uncertain channell, which is ſometimes depe and ſometimes againe ſhoale, and the channell ſhifteth to and againe, ſo that there is no certaintie to bewritten of it, where unto men might truſt.

The Iſland Rottum is a little Iſland, about a league and an half long, and very eaſy to beknowne, the weſt-end is hig and ſteep, the reſt is low land, with ſome little ſand-hills. Upon the eaſt-end ſtand two capes, the greateſt or the runner ſtandeth upon the eaſtend upon the flat ſtrand, the ſmalleſt on the ſouth-ſide of the ſand-hill. There ſtand alſo two Houſes upon it, the one upon the weſt-end, the other in the midſt of the Iſland in a valley.

Borckum is alſo an Iſland eaſy to beknowne, two great leagues long, it ariſeth commonly (when you come in out of the ſea) in three parts, as if it where three Iſlands, when you come from the weſtwards it ſheweth it ſelf in foure parts, for with hig flouds the water runneth throug in three places. The Worthy Counſell of Embden hath cauſed to be ſet upon the weſt-end a high thick ſteeple, which men may ſee far off at ſea, on the weſt-ſide of that ſteeple ſtandeth a little low Church. Borckum.

From the weſtend of Borckum ſhoteth off a riffe, a great wayes into ſea, called Burckum-riffe; to the ſouthwards of it, to witt betwixt Borckum & Rottum goeth in the Weſter Eems, which is the verie beſt channell that lyeth in all this Coaſt.

The Old or Weſterne Eems.

BRing the Capes upon Rottum together, and they ſhall then ſtand ſoutheaſt an, ſomewhat more eaſterly, if you come out of the ſea, ſayle reſolutely upon them, then ſhall you find the outermoſt buy, then ſhall you have the Tower of Borckum eaſt and more ſoutherly from you, and the weſt-end of Rottum ſoutheaſt and by ſouth, and lyes upon

Geltſax Plate. upon the taile of Geltſacks-plate, there is white buy with a little flagge, & lyeth upon 6 fathom with low water, & is marked in the Card with the letter *a*.

From the firſt to the ſeconde, the courſe is ſ. e. & by ſouth, is marked with letter *b*, and is the firſt black buy upon 7 fathom on the ſouth ſhoare, let this buy in your ſailing in lye on your ſtarboard, and the white on you larboard, then have you from this foreſaid black buy, the Tower upon Borkum eaſt and the Capes upon Rottum ſ. e. & by eaſt from you, from the firſt black buy to the ſecond, third and fourth buy marked with the letters, *c*, *d*, *e*, your courſe is eaſt and by ſouth.

Comming from the weſt neere the Lauwers of Boſſand, keepe the ſtroake of the ſhoare upon 5 fatom, till you are paſt it, ſaile then freely eaſtwards on, ſo ſhall you run within throug Geltſacks-plate in 4, 5 & 3 fathom, afterwards on 8 fathom, and ſo come by the fourth black buy, which lyeth in 4 fathom.

Borckummer Riffe. The Borckummer-riffe commeth on from without and is flat on the end, when as the Capes upon Rottum ſtand ſ. e, of then come you over the riffe, and ſhall come upon the taile of the riff with low water with leſſe then 7 dutch elles depth op water, for it is flatte and broad, on the inner-ſide, it is very high and ſteep, and ſhootes with a breſt inwards but you may caſt your lead well upon it.

From the fourth by till within the bending of Rottum the courſe is e. ſ. e. is marked with *f*, and lyeth upon 7 fathom, from this to the buy upon the hig plate & is the ſixth buy marked with *g*, and lyeth upon 7 fathom, as alſo to the Huyberts buy *h*, the courſe is eaſt and by ſouth, when the Cape upon the ſouth-ſide and the Tower come together they ſtand ſ. ſ. w. from one another, ſo are you even with the outermoſt Huyberts buy, goe then e. ſ. e. on to the innermoſt Huyberts buy marked with *i*, which lyeth alſo even as the firſt Huyberts buy in 6 fathom, upon the weſt-ſide of theſe buyes you have Huyberts plate, which is now devided from Huyberts ſand, and you may under ſaile it with low water, and is in the fareway 12, 13 & 14 fathom deepe, from the innermoſt Huyberts buy marked with *i*, to

Steven Janſz Buy. the buy before the Watt, called Steven Janſz buy, marked with *k*, the courſe is ſ. e. and lyeth on 8 fathom *k*, comming alongſt by the buy on Huyberts plate, you muſt leave Borckum a little that ſo you may ſhun the Mieuwen tayle

Mieuwen-tayle. which ſhooteth from off the Wolds or the ſouth-end of Borkum, this you may under ſaile upon 5 fathom, when you come inwards.

Weſtwards from Steven Janſz buy ſtand 5 Beakons a little to the ſouthwards there goeth the Watt in n. and by eaſt, almoſt as far from Steven Janſz buy as the innermoſt Huyberts buy lyeth from Steven Janſz buy, there ſhooteth out alſo an out corner or riffe called Ranſel, but you may under ſaile it upon 5 fathom, the marks of this chan-

Ranſel. nell and how to ſhun the taile or Ranſel are theſe upon the ſouth-end of Borckum lye two little downes, called the Wolden, keepe the tower of Borckum on the weſt-ſide of thoſe little downes, ſo ſhall you not ſayle upon the Ranſel, in this channell it is deep 9 & 8 fathom.

From Steven Janſz buy to Doecke buy *l*, the courſe is e. ſ. e. there find you (ſouthwards from this buy) a beakon

Ruyte Baken. *m*, called Ruyte-baken, this buy lyeth upon 5 fathom, and in the fareway you have 7 fathom deep, the flood falled very ſtrong behind this buy into Doecke-gat, whereof you muſt beware, from the buy with the Doeck to the Camper buy the courſe is e. ſ. e. marked with *n*, from thence to the

Marcks of the buy of Eemshorn. buy of Eemshorn marked with *o*, the courſe is ſ. e. lye both upon 5 fathom in the midſt of the farewater it is 7 fathom deep, the marcks of the Eemshorn buy are theſe, when the Cloyſter of the Dam (being a flat Church) commeth together with Holdwijck then have you the length of the buy; theſe marcks ſtand then about ſ. & by w. from you, ſtretching out from the buy of Eemshorn you ſhall find on the ſouth ſhoare 5 beakons, ſaile about that from thence to the Groningerdike ſ. ſ. w. till you get the Church of Uytwyrde & the Cloyſter of the Dam together, run betwixt to the ſhoare of Delftſail, for being paſt the buy of the Doecke, then you muſt preſently ſound the weſt ſhoare as Outterdum in 5, 6 or 7 fathom, & come not neerer them, for it is very ſteepe, the eaſt coaſt in ſailing up you may here-

about ſound upon 6 fathom, behind a plate called the Hont, being a hard ſand, & ſomewhat more inward lyeth yet another plate called the Pape, alſo an hard ſand runneth troug betweene both the Kreekes, but the weſt-ſhoare is ſoft & clay ground as farre as Otterdum, you muſt keepe the weſt ſhoare and follow the beakons which ſtand alongſt the ſhoare this reach ſtretches ſ. ſ. e. and by weſt, and ſo in the bending alongſt ſ. ſ. e. & by the Groningerland ſ. e.

For to avoyd Reyderſand or Jannens ſand, that is a plate in the middeſt of the Eems, betwixt Otterdum and Reyde, where upon at low water it is 10 foote, you muſt loocke out for Otterdum a flat Church, without a ſteeple, ſtanding in Groningerland on the dyke, when you come thwart of it, edge over to Embderland, to with, to the Knock, which is a ſteeple broked of, ſtanding in the water upon the point comming by the Knock, then runne within two cables length along by the north ſhoare unto Loegerhorn, and then you ſhall not ſail to near the plate. There ſtandeth a flat ſteeple betwixt the Knock and Loegerhorne, called Gerrit-ſwaert, when you can ſee throug that ſteeple, or when that ſteeple and the Church come one to the other, then are you thwart of that foreſaid plate.

When you ſail up the Weſtern Eems, you muſt leave all the buyes on te ſtarboard-ſide.

A ſ. e. & n. w. Moon maket without the Eems the higheſt water. In the Balgh ſ. ſ. e. & n. n. w. Moone: before the twone of Embden, a ſouth, or ſouth & by weſt, and a north or north & by eaſt Moone.

The Iſland Juyſt lyeth a great league, or a league & a half e. n. e. from Borckum, which is a litle low Iſland, the weſt-end is a hig ſteep point & gray land, the eaſt-end is higher then the middeſt. The Church ſtandet in the midſt upon the land; the ſteeple is ſomewhat ſharpe, & ſtandet at the eaſt-end of the Church for you cannot ſee the Church, but thwart of a low place or valley. Betwixt Borckum & juyſt goeth in the eaſtern Eems. From the weſt-end of Juyſt lyet of a riffe 2 leagues, or 2 leagues and a half weſt into Sea, on the of ſide you may ſound it in 3 or 4 fathom, to the ſouthwards of it goeth in the eaſtern Eems.

The Eaſterne Eems.

RUN upon the grounds of Borckum in 5 fatum & ſet the Tower of Borckum with the New Cape (which is of late there made) then will they ſtand ſouth from you, of if you come from the weſt then keepe the Tower upon Juyſt eaſt & eaſt & by nord from you, ſo ſhall you find the firſt or outermoſt buy in 5 fathom, from the outermoſt to the ſecond the courſe is eaſt & by nord, from the ſecond to the third e. ſ. e. they lye alle in 5 fathom in the fareway, it is 5, 6, 8 & 10 fathom deep.

The end of the Juyſter-riff, betweene the outermoſt & the ſecond buy is upon the innermoſt-ſide of extraordinary ſteep and riſing up, that you cannot ſound upon it, but more inwards from the ſecond buy it is flatter, there is good ſounding ground, the third buy lyeth upon the point of Brewers plate on the eaſt-ſide of Borckum which you may under ſaile, the taile is on the north-ſide very ſteepe, from the third buy ſaile yet eaſt ſoutheaſt on till you come even with the beacon upon the Hooge-Horn, there is a good roade upon 5, 6 or 7 fathom, and good lying for a ſouth wind, then with a flood you muſt goe on eaſt and ſomewhat more northerly that you may ſo ſhun the point of the foreſaid Brewers plate, the Juyſter riff is inwards from the ſecond buy flatt, ſo that you may ſound in five or ſix fathom, when you are a little eaſtwards the third buy, goe then ſ. e. on: the Eaſtern Eems is there about wide and broad. The eaſt-end of Borckum is flatt, then you muſt not forget to ſound when you ſaile out or with a ſhip that draweth much water, and if it bee with a ſoutheaſt courſe then come you upon the Conings-plate upon the point or taile of which lyeth a buy, and upon the Plate a Beakon, this buy and Beakon you muſt bring on your ſtarboard. To the north in Eaſt-Frieſland ſtand two Towers one by another of which the one is ſtumpy and great, and the other low & ſmall, when theſe Towers come with the

north-

north-end of Band a little Iſland upon the WATT even one with another, then have you the buy upon Koningsplate they are good longſt Marcks, & when Juyſter Tower commeth n. n. e. from you, they are good thwart Marcks of the ſame buy.

From the buy upon the Konings-plate to the buy upon the Weſternbalg, the courſe is ſ. e. untill you get the two Capes upon Band together, that is the Buy ſ.ſ. w. from you, from the firſt buy upon the Weſternbalg to the ſecond, the courſe is ſ. w. even as the whole Weſternbalgh is, you ſhal not miſſe (if you kepe bot the Capes upon Band together) to run out of the Balgh but at laſt a little more weſterly.

From the Balgh beakon to the beacon upon Eems-horn the courſe is ſouth and north, to ſaile throug the channell from theſe beacons forth to the Cnock, the courſe is ſ. ſ. e. from thence to Loegen eaſt.

About a half league within Juyſt, betwixt the beacon upon the hig Horne, & the buye upon Kings-plate on the eaſt-ſide of the Eaſter Eems lyeth Memer-balg. It lyeth in Memer Balgh. moſt north, that is a good road for ſmal ſhips that are bound to the weſtwards or out into Sea. Within the Balg he that runneth by the high Horne ſhall finde good road for ſmall ſhips, that are bound to the eaſtwards, which lyeth in ſouth.

Comming from the eaſtwards, you may ſound Juyſterriff which is flat on the off-ſide, without, in the point of the riffe is a ſhoare or Deadbalg, with two points, betwixt them it is 3 fathom and an half deepe.

A ſ. ſ. e. and a n. n. w. Moone maketh (without in the Eaſter Eems) the higheſt water.

To the eaſt of Juyſt lyeth Buys, the ſhorteſt and ſmalleſt Iſland that is upon all this coaſt. It riſeth up in two Hommocks, where of the Hommock, which is the moſt eaſterly is the higheſt and ſharpeſt.

Betwixt Juyſt and Buys goeth in the Buys-deepe: the Buys-deep. Wor. Counſell of Embden was wont to ſet it with Buyes, but it is done no more, in regard it doth ſo oftentimes ſhift.

Two great leagues to the eaſtwards of Juyſt lyeth Nor- Norderny. derny, betwixt them both lyeth that litle Iſland Buys. Norderny is to beknown by a broad flat Tower, which ſtandeth upon the weſt-end, but ſometimes men can hardly perceive it. About the midſt of the Iſland, neareſt the eaſt-end lyeth a hig white ſandhil, thereby it is beſt to beknown. Further the land is full of Hommocks. Betwixt Norderny & Buys goeth in a channel, called the Norder-deepe or Norderny.

A great league to the eaſtwards of Norderny lyeth the Iſland Baltrum, which is about 2 leagues long, a litle ſhorter Baltrum. the Norderny. Upon this Iſland ſtandeth no ſpeciall thing, where by men may know it: but upon the eaſt-end a hig ſandhill, which is ſharp a bove, the weſtend is low ſandhils. When the foreſaid hig ſand-hills is ſ. e. and by eaſt from you then it is round to ſee to: Upon the weſt-end there goeth a ſwamp through.

Betwixt Baltrum and Norderny runneth in a channell, Whichterye. called the Whichterye, there is no certainty to bewritten of it that men may truſt to, ſometimes there is 2 fathom water and more, and ſometimes no more then 4 or 5 foote.

The Iſland Langeroog lyeth a league to the eaſtwards of Baltrum, which is 4 great leagues long, and hath on the off-ſide a faire ſtrand and three or four ſand-hills, where by men may know it, which lye from about the middeſt of the Iſland unto the weſtend, a good wayes one from the other, the tops of them are playne and flat. Betwixt Langeroogh Acumy. and Baltrum goeth in the Acumy, where in lye two buyes. It is no channell for great ſhipps, it lyeth out alongſt by the foote ſtrand of Langeroogh, firſt northeaſt, & then ſomewhat more eaſterly, but it is not to betruſted to, becauſe it altereth and ſhifteth very oft.

Betwixt Langeroogh & Wrangeroogh lyeth the Iſland Spyc- keroog. Spyckeroogh, which is about a league long. At the eaſtend there was wont to lye a little Iſland eaſy to beknown, called luttick Spyckeroogh, which is now altogether gone. Upon Spyckeroog ſtandeth nothoing, where by men migt know it, but it is a black land with Hommocks & Nobbes, like to the other Iſlands. Betwixt Spyckeroogh & Langer- Oxe- balgh. oogh goeth in the Oxebalgh.

Wrangeroogh lyeth two great leagues to the eaſtwards Wran- geroog of Langeroogh, which is a great league long, being a little plaine white Iſland. Upon the eaſtend lye hig broad white ſandhills. Upon the weſt-end the Earle of Oldbourg hath cauſed to be made great thick Tower with two ſpires, when they ſtand one rigt in the other, then you are by the outer-buy of the Weſer; the aforeſaid Tower men may ſee two kennings of at Sea. Betwixt Wrangeroog & Spyc- The Harrel. keroogh goeth in the Harrel, about ſ. ſ. e. but it is not to beſtruded becauſe it ſhifteth very often.

The Acumy and Harrel are ſet both with buyes by the Wor. Counſell of Embden: Theſe Channell ſerve not but for ſmal ſhips, like as all the other, lying betwixt the Eaſtern Eems and the Weſer.

The land lyeth from Bornriffe to Wrangeroogh e. n. e. and w. ſ. w. 29, or ſome will have it 30 leagues.

For to ſail into the Jade or Weſtern Weſer with a ſoutherly winde, runne to the ſtrand of Wrangeroogh in 4 fathom, with a weſterly winde runne no further then 5 fatum & lead it in ſo by the ſtrand of Wrangeroog in 4 or 5 fatum, untill you come a good wayes within, or to the end of fote ſtrand of Wrangeroogh, there you ſhall finde the firſt buye in 5 fatum at low water; Menſer Church ſhall then ſtrand ſouth from you. Thwart of this firſt buye the redde ſand is very ſteepe, which you muſt leave on the larboard ſide, and the buye on the ſtarboard ſide, when you come in. Thwart of this firſt buye commet a tayle, ſhoting off from the ſouth ſhoare, that is the innermoſt point of the Stonebalg, which men migt at unawares ſail within, in 3 fathom & an halfe, or 4 fathom, the firſt buye is layd upon the point of this tayle. The Stonebalg goeth into the eaſtwards of Wrangeroog the ſouth-ſide whereof is ſteep, but the north-ſide flat, which men may ſound. In this Balg it is 10 foot depe at low water. From the firſt buye to the ſecond, and alongſt to the third, the courſe is eaſt the ſecond buy lyeth in 2 fatum & an half. The third, that is the Jade buye, lyeth in 3 fatum, upon the ſhoaleſt of the Higwaye. It is very uneven betwixt the firſt and the third buye, you ſhall get wiſe depth of 5 or 6 fatum and then again 2 fatum, or 2 fatum and an half.

For to ſaile from the Jade to the Weſer, then ſaile by the third buy over the ſhoaleſt of the Higway on e.n. e. to Mellembuye, & you ſhall finde at low water upon the foreſaid ſhoaleſt place, or by the third buy, no more water then 9 or 10 fote, and being over there you ſhal get againe deper water, & then you are in the Weſer: Reckon wel your tydes, for the ebbe falleth very ſtrong n. n. w. out at the Jade, & the flood to the contrarie, very hard inwards, ſo that you can hardly ſtemme the tyde when the weather is ſomewhat calme, where of you muſt be very careſull.

For to ſaile up into the Jade, leave the foreſaid third buye on the larboard ſide, & go from thence moſt ſouth up unto point of the Dycke, called Hormerſcheel, when you are come by the Dycke, there the Jade is wide and broade, without the foreſaid Dycke ſtandeth a beacon or two, for ſhipps that are bound over the Watt: If you will ſaile further up into the Jade, then keep the weſt ſhoare, untill you come thwart of the Church without a ſteeple with ſtandeth by the Dycke, there you muſt leave the weſt ſhoare, becauſe of the Aenten, or Jeppe-plate, which ſhoteth off from the Veer, alongſt the weſt ſhoare, and ſometimes lyeth drye at low water. The weſt ſhoare lyeth moſt ſoutheaſt ſomewhat ſoutherly.

A ſouth & north Moon maketh the higheſt water upon the Jade, and it floweth with an ordinary tyde 2 fatum and an half up and downe.

The Weſer.

FOR to ſaile up the Weſer, come no nearer Wrangeroog then 7 fatum, being in 7 fatum, then edge of from the ſhoare into 11 fatum, and you ſhall there finde the firſt buye at the comming into the Weſer, lying in 7 fatum upon the taile of the Redſand, Menſer Church (that is a flat Church without a ſteeple in Vrouwkens-ſand) is then ſ. ſ. e. from you. Being thwart of the firſt buye, & that the weſtend of Wrangeroog is ſ. ſ. w. from you, then you runne over the taile of the Redſand in 5 fathom.

From the outermoſt-buy to the ſecond, third, fourth & fifth,

fifth, the courſe is due eaſt, which lye all in 7 fathom the ſouthſide (to wit the Red-ſand) neareſt each a poynt different from Menſer church, ſo that Menſer church lyeth from the ſecond ſ. & by eaſt from the third ſouth, from the fourth ſ. & by w. and from the fifth ſouth ſouthweſt. The fifthbuy is called the buy upon the Head, for to know that from all the other buyes, there ſtandet a ſtaffe upon it of a halfe fathom long, with a withte knotte upon it. Over againſt the buye upon the Head lyeth a white buye on the white grounds. Betwixt all the foreſayd buyes you muſt reckon wel you tydes, flood commeth out of the n. weſt, and falleth alongſt over the Red-ſand, and the ebbe the contrary. The right deep thwart of theſe foreſaid buyes, in the comming in is 11 fathom, but thwart of the buye upon the Head, five fathom at low water.

Middle Plate. Right before the Weſer lyeth the Middle-plate, the Eaſtermoſt of the Inner-ſide beginnet right to the northwards of the buye upon the Head by the white grounds, and lyeth alongſt the reach of the third buye, to reckon from without, & is on both ſides flat for to ſounde about. On the weſt-ſide of the foreſayd plate lyeth a white buy about from Menſer Church, which you muſt leave in comming in one the larboard-ſide.

For to ſail from the buye upon the Head, out again to the eaſtwards of this plate unto the Elve. Then ſoud it out about the white grounds, in 4 or 5 fathom, untill you be out in the Sea.

For to ſayle further up into the Weſer, the courſe from the buye upon the Head unto the ſixth buye is ſ. e. & n. w. Menſer Church ſhall then lye from you ſ. w. and by ſouth, the Weſer is thwart of it about 20 fathom deep. From the ſixth Buye to the ſeventh, that is, the Buye upon the cours, or the Wapper-buye, or the ſouthweſt-buye, becauſe Menſer Church lyeth ſ. w. off from it, the courſe is ſ. e. The Jade-Buye lyeth abouth ſouth, or ſouth & by weſt from this Buye. From the Buye upon the Cours unto the Mellem-Buye, the courſe is yet ſ. e. which you migt ſayl within at unawares in 6 fathom. Menſer Church lyeth off from it ſ. w. and by weſt. From the Mellem-Buye to the Buye upon Bollen-ziele, the courſe is ſ. e. ſomewhat eaſterlye; you muſt reckon your tides there verye well, becauſe the floude falleth exceeding hard into the weſt ſhoare. Langworder Church lyeth right ſouth & by eaſt from that buye upon Bollen-ziele, over againſt it upon the point of the black grounds lyeth a white buye, come nearer to it at half floud then 4 fathome and an half, you might unaware ſayl within that point (in ſaylingh in) in 4 fathom. From the buye, upon the Bollen-ziele to the beakon upon Bollenziele the courſe is ſ. ſ. e. or ſud eaſt and by ſouth. Langworder Church lyeth about ſouth from that beakon, you muſt leave it on the ſtarboard-ſide, comming in within that beakon upon Bollen-ziele is a good roade for a weſterly winde. From the beakons upon Bollen-ziele to the firſt buye upon the flat, the courſe is ſ. e. till you come ſomewhat beneath the beakon, & then alongſt e. ſ. e. The marks of the firſt buye upon the Flat is, when you can ſee throug the Belholes of Langworder ſteeple, then you are thwart of the firſt buye, Langworder Church is then from you ſomewhat more ſoutherly then ſ. ſ. w. From the firſt buye upon the Flat ſecond, the courſe is e. ſ. ſ. e. Betwixt theſe two buyes ſtande five beakons on the larboard-ſide, upon the black grounds. From the ſecond buye upon the flatt to the Meyland, the courſe is ſ. e. and by ſouth. Being come thwart of wadnis or the Meyland, ſail then cloſe alongſt by the green ſhoare untill you come within Blixem, there is the roade for great ſhips that are bound to Sea.

Buye upon Bollen-ziele.

Like as upon the Jade, ſo alſo upon the Weſer a ſouth and north Moon maket the higheſt water, it floweth there alſo 2 fathom and a half up and downe.

South-ground. To the eaſtwards of the Weſer lye the ſoud-grounds of the Elve, there go in 2 faire deep Balghs or Creeks of 11 12 & 13 fathom. The Til, called alſo Brodbalgh, is the weſtermoſt, & lyeth ſo far to the weſtwards, that men can but even ſee the New-worke from thence.

If it ſhould happen that comming to the eaſtwards of the Weſer, you ſhould be beſet upon the ſouther grounds, being at leſt ſhoare, & be in danger, then ſaile to the ſouth grounds in 4, 5 & 6 fathom, but not much nearer alſo, for they are ſomewhat ſteepe. When you (running ſo along by theſe grounds upon the ſame courſe) ſhall get 8, 9 yea 10 or 12 fathom ſoft ground, then that is certainly of the Broadbalg or Weſter Till, take then the ſounding of which ſide that you will, and ſound it about by the grounds in 4 or 5 fathom, & you ſhall finde amongſt the ſands ſmooth water, and good roade, & may lye ſheltered for all winds. The weſter Till lyeth in firſt e. ſ. e. alongſt by the north ſhoare it is deepeſt, on the ſouth ſhoare you cannot ſail within any tailes in ſailing out, but you may ſailing in: when you come ſomewhat further in, lyeth up more to ſouthwards: there are divers Balgs or channells, where men may ſaile throug that are acquainted.

The Eaſter Till or Broadbalg lyeth betwixt the Weſter Till and the Houtbalgh, which runneth in 7 fathom into the eaſtermoſt point, (or the old Schorhorn) that is a taile which lyeth off a good wayes, and which you migt at unawares ſail within in 7 fathom comming from the weſtward. This Till lyeth in alſo (licke as the other) firſt e. ſ. e. but a little further in more eaſterly. Here alſo you may take ſounding of which ſide or ſhoare that you will.

Being com within, you ſhall get ſmooth water of the ſands for all winds. In this channell is not leſſen then 7 fathom water.

The Houtbalgh lyeth rigt into the weſtwards of the Steep buye or Schornhorn. If you will goe in there with ſmall ſhipps for to ſayle over the Wadt into the Weſer, then goe (when you have the Steepe buye) in ſ. ſ. e. The Houtbalgh is without indifferent wide, keepe that courſe, untill you come thwart off the beakons, which you muſt leave on the ſtarboard-ſide, you moy well ſound in about the off-ſide of the Schor-horne, but not the weſt-ſide, by it lye plates which you migt ſaile foule of in 9 fathom, in comming in, but on the Schor-horne you cannot doe amiſſe.

Holy-Land.

THE Iſland Holy-land, & the outermoſt buye in the Weſer, lye one from the other, ſout ſomewhat weſterly, and north ſomewhat eaſterly. When it is cleare & good ſight, you may ſee Holy-land, when you ly in the Weſer, by the buye upon the head Holy-land and Bornriffe lye one from the other ſ. w. and by weſt, and n. e. and by eaſt accordingh to the common opinion, 32 leagues. When you come from the weſtwards and begin to get Holy-land in ſight, it ſheweth it ſelfe with a high treddiſh ſteep point, which is flat above. For to anchor or make roade under Holy-land, comming from the weſtwards, then runne to that land in 10 or 12 fathom. When you ſayle towards the ſouth-point, and come ſomewhat near the land, you ſhall eſpie a rock, like unto a ſmall Tower, cloſe by the hig land, called the Monck, which is almoſt ſo high as the hig land. About ſ. ſ. e. an Engliſh mile, or a little more from that rock under water. If you keepe your ſelf in 8 and 9 fathom, then you run without this rock, and cannot take any hurt of it. When the Monck is covered of the outher land, then you are thwart of this ſuncken rock. When the foreſaid Monck cometh a handſpikes length, paſt or without the other land, there is the road, & good anchoring in 10 or 11 fathom; the ground is there faire and cleane, except it be of wraks of loſt ſhips, or loſt anchors, which are there maine. Lying there in 9, 10 or 11 fathom, you have ſhelter for a w. ſ. w. n. w. & north windes. From the point where the Monck ſtandeth by, ſhooteth off a little riffe from the ſhoare, which men may ſound in 3 fathom, you may alſo runne in 5 fathom from the ſhoare, and ſaile cleare of the foreſayd ſuncken rock, to with, through betwixt the ſuncken rock, and the little riffe: but if you runne into deeper water, to with, in 7 fathom, you ſhall runne right upon the ſuncken rock. In 8 or 9 fathom you doe runne about without the ſuncken Rock.

From the north-ſide of Holy-land lyeth off a filthy Riffe, almoſt a league into ſea, ſo that you cannot come neare the whole north-ſide, then in 9 or 10 fathom. If you will

will goe about to the northwards of Holyland, being come so farre that the east-end of Holyland come to be south & south & east from you, saile then freely unto the Scholvers-point, that is a flatt point, which you may sound in 5,6 & 7 fathom. If so be that you will runne in 8 fathom of from it, you shall runne above two great leagues from the shoare. The right fareway betwixt the Hever & Holyland, is not more then 9 or 10 fathom deepe. When you come about the point to the roade, & that Scholvers-point lye n. e. and the Rock s. w. from you, there is good lying in 5 fathom.

Schulvers-point.

Scholvers-point is the point where the South-Haven lyeth within, which lyeth from the hig land about east into Sea. From the outermost-end of Scholvers-point lyeth a banck of 3 fathom, unto the point where the Monck also standeth, within it is very good lying for ships of little draugt, that is called the South-haven of Holyland. A s. s. w. & n. n. e. Moone maketh there the highest water.

South-haven.

Of the Elve.

THE Roade of Holyland, & the outermost buye of the Elve (called the Schortunne or the Steep-buye) lye s. e. and by east and n. w. & by w. 8 leagues a sunder, which lyeth right to the northwards of the Schor-horn, that is the outermost-point of the New-workes ground, on the south-side of the Elve, the rigt deepe of the Elve runnet in alongst to the northwardes of it. On the north-side of the Elve lye the north-ground, which lye somewhat flat for of to seawardes upon the northwest-side. The south-end of the north-grounds, called Vogelsand, runneth from the foresaid buye a good wayes west & by north into Sea, with a narrow taile of perfect hard sand, about a halve league broad, which waxeth by little & little the farther from the shoare the deeper. Three leagues from the foresaide buye, there is upon it 11 fathom water, when you saile on north from the steep-buye, you runne over it in 3 fathom, or 3 fathom & a halfe, but it doth so ne againe in 5, 7, 8 & 10 fathom, soft ground, that is in the Creeke of the North-Elve. To the southwardes of that a foresaid Vogelsand, in the rigt fareway of the Elve (for him that commeth from the westwardes) it is also somewhat soft ground, and 14 & 13 fathom deepe, to the southwardes of it, towards the souther or Steepe-grounds, the ground is againe very hard, & the grounds very steep, you may not come nearer them (especially by nigt or darke weather) then 11 or 12 fatum, if you come nearer to them, you migt saile foule of the Wester-Till, or Souther-broad-balg, which runneth up to the southwards into the grounds to nothing.

Mirdle of Vogelsand.

North-Elve.

When you come from the westwards, and saile to the Elve, you shall finde betwixt Holyland and the Weser, and there abouts somewhat to the eastwards, depth of 20 fathom, untill that you come well halfe wayes to Holyland, toward the Steene-buye, then it doth begin to shoale from 18 to 16 & 14 fathom, close by the Steep-buye it is 12 fathom deep.

If you come by nigt alongst by the Steep or souther-grounds, with a southerly winde in 12 or 13 fathom, and goe on east & north you shall at last meer with the shoaling of the New-workes-grounds, rigt the northwards of the Hond-balg in 8 & 7 fathom, there you must then let fall your anchor, for to stay for the day, & you shall finde your self not farre from the Buye. With northerly windes you must anchor further from the south-shoare in the foresayd shoaling in 11 or 12 fathom.

To the northwards of the foresayd narrow tayle, or shoaling, which lyeth off from Vogelsand, runneth in a great Bigt or Slenck into the Norther-grounds, called the Norther-Elve, it is in the going in somewhat within so broad that you may there in turne to winde-wardes, but within it runneth narrow & sharp to; and at last to nothing, (ending allmost against the white-buye, which lyeth upon the Elve, upon the taile of the New-grounds) it is going in more then halfe wayes 13 & 12 fatum deep, & soft ground, very muchlicke the rigt Elve. It happeneth oftentimes by darke wether that the shippers (thinking that thy are entred into the rigt Elve) runne in there, sometimes with danger, especially with w. n. w. windes, for they must come out there back again. When you sail of from Holyland on e. s. e. you shall have depth of 12 or 13 fathom, being a league off from it, that you leese the white Cliffe out of your sigt, then you shall get one eve depth of 13 fathom, & soft ground, all alongst untill you come within the foresayd North-Elve. When you shall perceive that you are entred in there, you may (when the New-worke is more southerly then s. e. & by south from you) run alongst over the tayle of Vogelsand in 5 fathom, and so come against the Steep-buye upon the rigt Elve.

Norther-Elve.

For to set saile by nigt from the road of Holyland, the course is s. e. & by east, then you shall run over the foresaid taile of Vogelsand in 7 and 8 fathom, and somewhat hard sandy ground. If you then run a little more southerly, you shall get againe 12 & 13 fathom & somewhat soft ground, that is the rigt deep or channell of the Elve, betwixt Vogelsand and the steep grounds. If you runne then more southerly, you shall get againe somewhat hard ground of the Souther-grounds, which are (as hath beene heere beforesaid) very Steep and hard, when you come neare them in 12 or 11 fathom, you must edge off againe from them unto 12 or 13 fathom, and alongst by them towards the steepe-buye, unto the foresaid shoaling of the New-workes-grounds, & there stay for the day ligt.

When you come by day from Holyland or from the westwards, and that you get New-worke in sigt of you bring that and the Cape one in the other, & sayle so rigt in with them, then you shall finde the Steepe-buye, which lyeth (as hath beene alreody sayd) towards the south-land on the side of the Schor-horne the outermost point of the New-grounds in 10 or 11 fathom. From the Steep-buye to the Kool-buye, that is, the second Buye, the course is due east, which lyeth in 8 fathom. Upon the New-worck stand tree Countrymens-houses, the middlemost of them, and the steeple of the New-worke come one in the other when you come to the second buy. The third Buy lyeth in 6 fatum, from the Kool-buye east & north somewhat easterly, but nearest east & north. The fourth lyeth in 5 fathom from the third east & by north. Betwixt these buyes a little within the third, raun a deepe Kreeke e. s. e. into the New-workes-grounds, called the Kinder-balgh, which is wide at the entring in, & a halfe flood well 9 fatum deepe; but runneth at length altogether drye to nothing. He that commeth running alongst by the south-grounds, migt ligtly get in there, therefore the third buye lyeth a little further off from the south shoare, because men should avoyd that Kreeke. Betwixt the third and fourth buy on the north-side of the deep lyeth a white buye in 3 fatum, upon the taile of the New-ground, which men migt saile within, when they come inwards, that you must leave on larboard-side, & all the blacke buyes on the starboard-side.

Kinder-balgh.

New-ground.

The foresaid white buye & the New-worke lye n. n. e. & s. s. w. one from the other, to the eastwards of it the north-side is very steepe. The fifth buye lyeth in 3 fatum & a halfe, or 4 fatum, & lyeth from the fourth full east.

The sixth buye, that is the point buy, lyeth in 6 fathom from the fourth and fifth due east. In the rigt deep to the northwards of these foresaid blak buyes from the Kool-buy to the point buye in the rigt fareway, it is all alongst 6 and 7 fatum deep. From the point buye to the buye in the Rosse, the course is s. e. which lyeth in 7 or 8 fathom, when the Ros beakon commet to the litle steeple of Gron or Groen, then you are thwart of this buye. Halfe wayes betwixt the point buye, and the buye in the Rosse, lyeth yet another buye on the south-side, which is there betwixt them both exceeding steepe and needle to Rigt e. s. e. from the point buye over against the buye in the Rosse, somewhat further inwards, lyeth a white buye upon the tayle of Romarl-plate, which men migt at unawares saile within, in 4 or 5 fathom when they sayle upwards. When the little sharpe steeple of Woord commeth to the westwards of Oldenbroeck (that is a Church with two spires upon one steeple) then they are south from you, from thence inwards you may sound Romarl-plate in 6 fathom without danger, otherwise it is on the off-side very steepe. From the Ros beakon to Brunsbuttel or 5 leagues, betwixt the buye in the Rosse, and the buye upon Romarl-plate begins a sand lying right

in the middeſt alonghſt the fareway, about two leagues long, called Pilgroms-ſand, upon it is alongſt no more then two fathom water, or a little more, upon it lye three black buyes, and over againſt it on the north-ſide, two white buyes, you muſt ſaile throug betwixt them, alongſt to the northwards of that ſand, being paſt it, you ſhall come upon the flat. There lye yet two buyes, which you muſt leave alſo on the ſtarboard ſide it ſayling up, before you come to Brunsbuttel. All the depths here before mentioned, are reckoned at halfe flood.

From Brunsbuttel to the buye upon Salſhorne, or Fryburger-ſand, the courſe is eaſt, and eaſt and by north alongſt by the North-land. From Salts-horne to the Buy againſt the Steur, eaſt and by ſouth, and eaſt ſoutheaſt, from the Steur to the buye upon Gringer-oorts-ſand ſoutheaſt, and ſoutheaſt and by eaſt, that lyeth againſt Bylenburgh more then halfe wayes in the deepe. Betwixt this Buye and the buye upon the Steur lyeth another buye in the fareway. From the buye of Gringer-oort to the buye upon Staderſand, ſoutheaſt and by ſouth and ſouth ſoutheaſt. This buye you muſt leave on the ſtarboard ſide. From Staderſand to Willems-fliet, or the buye upon the Luyte it is ſoutheaſt, and ſoutheaſt and by ſouth, and from thence to the buye upon Terloo eaſt ſoutheaſt. From thence to the buye upon Hanneball, the courſe is eaſt and weſt. From Hanneball to the buye upon Blanckenes-ſand, eaſt an eaſt and by north, you muſt keepe that buye right with a great Tree, and then runne alongſt by the North-land untill you bee paſt the buye.

From Blanckeneſſe ſand unto the buye in the bight, the cours is eaſt ſoutheaſt, from thence unto the Eeckhout eaſt and by north, in the right channell it is there three or four fathom deepe, there lye the great ſhips for to lade and unlade.

The Eyder.

SIX leagues to the northwards of the Elve lyeth the Eyder, with many ſhoales lying farre out without the land chiefely and moſt on the ſouth-ſide, on the north-ſide of the deepe alongſt by the land of Eyder-ſtee lyeth a long ſand, called the Broad-back, or New-grounds, on the ſouth-ſide lye Blavoort, the Iron Hendrick, the Hound and Heck-ſand. To the ſouthwards of Blavoort, and the Iron Hendrick, about a league to the ſouthwards of the mouth of the Eyder, goeth yet up a Deep in called the North-pype, where men may ſayle in, and come out againe by the Hound upon the Eyder. In this Eyder lye on the ſouth-ſide of the Deepe ſeven black buyes, which you muſt leave all (in ſayling in) on the ſtarboard ſide, and on the north ſhoare, which you muſt leave on the larboard ſide. The outermoſt buye lyeth from the ſteepe buye rigt north, and from Holyland eaſt or a little more northerly ſeven or eight leagues. When you fall with the land with that courſe you ſhalle eſpye to the northwards of the Eyder, upon the land of Eyderſtee, a ſharpe ſteeple indifferend high, called Gardingen, bringh that over or to the ſouth-ſide of the little ſand-hills lyingh on the north-ſide of the Eyder, called the Souther-Heads, they ſhall then ſtand from you northeaſt and by north, or a little more eaſterly, ſaile right in with them ſo, and you ſhall fall with the outermoſt buy, when that then the ſharpe ſteeple of Weſtinburen, ſtanding to the ſouthwards of the Eyder in the land of Ditmarſen commet to be eaſt or a little more ſoutherly from you, then you have the length of the foreſayd buye, and then Saint Peters Church upon the Eyderſtee to the weſtwards of Gardingen, not farre from the Sea-ſide, ſhall ſtand from the north northeaſt. Thus, or comming out of the ſouthweſt upon the foreſayd marckes of Gardingen, and the Souther-heads, you ſhall run over the ſhore of Blavoort, which men doe call alſo the tayle of the Hound, lying off from Blavoort allmoſt halfe wayes to Holyland. It is alſo by ſome called Blavoort, or commingh from the northwards, bringh the foreſayd ſteeple of Weſtinburen eaſt or a little more ſoutherly from you, and ſaile ſo right in untill that Gardingen commeth to the foreſaid ſoutherheads, or that S. Peters Church bee north northeaſt from you, in doingh ſo you ſhall not miſſe alſo the outermoſt buy. From the outermoſt buy to the ſecond, third and fourth, it is all one courſe, eaſt ſoutheaſt, the ſecond lyeth upon the ſhoaleſt of the channell at low water in 19 foot, the third in four fathom, and the fourth in 5 fathom.

Theſe three laſt lye alongſt the north-ſide of Blavoort, on the ſouth-ſide of the deepe. In ſayling in, you muſt leave them all on the ſtarboard ſide, and runne alongſt to the northwards of them. From the fourth to the fift, that is, the buye upon the Hound, the courſe is eaſt, which lyeth thwart of the Hound, on a poynt which lyeth of from Heckeſand, which in comming in, men might at unawares ſayle within alonghſt to the ſouthwards of the buye, therefore you muſt leave that alſo (as well as the former) on the ſtarboard ſide, and ſayle alonghſt to the northwards of it. Betwixt this foreſayd buye upon the Hound, and the fourth lyeth another buye upon the north-ſide of the deep, upon the ſouthermoſt poynt of the New-grounds, which you muſt leave on the larboard ſide, and runne about to the ſouthwards of it. From the buye upon the Hound to the ſixth, the courſe is north northeaſt, and two fathom deep. From the ſixth to the ſeventh and laſt buye northeaſt and by north, & the deepe alongſt to the northwards of it three fathom. Beingh paſt the laſt buye, follow the beakons, which ſtand alongſt on the north ſhoare, untill you come to Hulck, runne cloſe alonghſt to the ſouthwards or to the eaſtwards of them, for to avoyd a tayle of ſand, which commeth off from the eaſt ſhoare, which men might unawares fayle within into a Dead-creeke. From the Hulck to Schulper-zyle, the courſe is eaſt ſoutheaſt. In that reach, the beakons ſtand on the ſouth-ſide upon the Ballaſt-plate, and you muſt run alongſt to the northwards by them, leavingh them on the larboard ſide. From Schulper-zyle to Tonningen the courſe is north northeaſt. Before Tonningen the Eyder is at the ſhoaleſt, & at low water, no deeper then one fathom and a halfe. From thence further in towards the New-town called Frederick-ſtadt, there is depth enough.

The depths here before mentioned are all to bee underſtood at low water. From Tonningen towards Wollerſum the Eyder lyeth alongſt northeaſt and by eaſt. From Wollerſum towards Harebleck north northweſt. From Harebleck towards Reymers-bode northeaſt. From Reymers-bode towards Nyen-zyle eaſt ſoutheaſt. From Nyen-zyle to Nyen-veere ſouth.

Betwixt the fourth buye upon the Eyder, and the fifth, that is, the buye upon the Hound, over againſt the buye upon the ſouthermoſt point of the New-grounds, ſtand two beakons a little to the ſouthwards off the foreſayd two buyes the weſtermoſt upon the eaſt-point of the Blavoort, or the Iron Hendrick, and the eaſtermoſt upon the tayle of the Hound. Betwixt theſe two beakons goeth in through a deepe ſoutheaſt or ſoutheaſt eaſt and by eaſt, where you may ſayle through alongſt by the beakons upon the Iron Hendrick (which you muſt leave then on the ſtarboard ſide) untill you come into the end of the North-pype, which lyeth from thence about weſt into Sea. You may ſound in at the North-pype, comming in out of the Sea by the ſouth ſhoare in three and four fathom, untill you come to the foreſayd beakons, and then about by them northweſt or ſomewhat more weſterly up unto the Eyder, or elſe you may runne further alongſt by the foreſayd ſouth ſhoare, untill you come about the beakon upon Hoedmeerſand, and then forth betwixt the Iſland Bulheads and Buyſen alonghſt by the Beakons upon Hoedmeer-ſand, with many poynts and Bights on to the ſouthwards, and come out at laſt upon the Old-Elve, about northeaſt from the Newworck againſt the New-grounds, which is noth well to bee ſayled, but of thoſe that are there very well acquainted.

Alongſt by the north ſhoare of the Eyder, cloſe to the ſouthwards of the little ſandhills, the ſoutherheads, runnet in yet a Land-deepe, eaſt and eaſt and by north in, & commeth out againe upon the Eyder by the Hulck, that ſerves but onely for ſmall ſhips, there remaineth at low water but five foot.

Of

Pascaert van

JUTLAND

en de Eylanden daer omtrent.

't Amsterdam

by Casparus Lootsman boeckvercoper opt water inde Lootsman.

Holmen
Tornenburg
Wesberg
Borrenbergen
Frolsmond
Swansberg
Rmcopen
Hirtshorn
Rmcopmer diep
Blaauwe berch
Limet
t Land van Limet
Gladde Jacht
Den Ulyl
Lemsberg
Doelsmond
Dudbergh
Hertogen
Zangelen
Sandervyl
Schellinghs kroeg
Vyle Zandt
Ref
Bank
Dog
bank

18 20 21 19 25 24 23 27 35 49 48 45

U T S A N D

Husum

Rem

Silt

Duytsche mylen 15 in een graet

Spaensche mylen 17 ½ in een graet

Eng: en Fra: mylen 20 in een graet

5½

S C H O O N E N

Z E E L A N D

F U Y E N

Engelholm
Hellenborg
Landskrona
Barsebeck
Elbogt of Malmoyen
Schoonen of Halfterbon
Drelborg
Halfterbon
Noord vliet
Zuyd vliet
Schuldholm
Vischer
Weem
Ton op Casper
Ton op Draker
Draker
Sondt
Kronenborg
Sluys
Elsenaur
Slot Cronenborg
Schockshooft
Coppenhagen
Kuyck
Stadne
Preste
5 voet
Kol
Happsant
Laus grunden
Cattryn
Roskild fiörd
Werdenborg
Nestvelt
Haselyn
Nicopin
Roerwyck
Ysen fiörd
Seelands riff
Kallenborg
Rodens
Syre
Groote helms
Hatters riff
Rosnes
Cassuer
Syro
Romps
Knutshooft
de Friessel
Stons
Tassing
G. Wero
Kyholm
Samps
Eebeltod
Fuenshooft
Landskrona
Cartemunde
Nyborg
Oslorp
Olms
Gudsmo
Swynborg
I. Knol
Uldorp
Woberg
Ascens
Bulsack
Ulbuy
I. Samso
Helms
Horn
Ebeltoft
Ions
Endelau
Wieder sond
Bowens fiörd
Orgard
Landorp
Karsgrad
Eens
Loreu
De Roen
Areu
Milbaer
Milbaer sond
Schouffoer
Arnis
Aerhuysen
Horsen
Kolding
Kadderfleben
Vlie
Duytsche mylen 15 in een graedt
Spaensche mylen 17½ in een graedt
Eng en Fra. mylen 20 in een graedt

I. Rugen
Straelsont
Barth
Rostock
Wismar
Lubeck
Femeren
Falster
LAND
Poelland
Oudevaer
Ter Munde
Boechooch
Groote Cruysoort
Cleyne Cruysoort
Stabuy
Borch
Petershorn
de Haken
Colberger
Heiligerhaven
Hogewacht
Heyde
Sismer
Reudzum
Robbenes
Bout
Gelter Sant
Nicoping
Gelter Sond
Aelholm
Robbey
Saseoping
Maschou
Abo Vis schers huys
Royde Sant
Sleye
Kyl
Flensborg
Apenrade
Hornburg
Reinshoofd
Sandenborg
Poelsrif
de Tolck
Subecoping
Gelter
Ter Munde
MECKE
BORG
HOLSTER
LAND
SAND
Pascaert vande
BELDT,
't Amsterdam by Caspar us Lootsman,
op t water inde Lootsman.
6

Of the Tydes and Courſes of the Streamus.

Before the Scholbalgh, the Lauwers and the Schille, and before the Weſtern-Eems a ſ. e. and n. w. Moone maketh high water.

Before Embden and Delfzyle a north or north and by eaſt, and a ſouth or ſouth and by weſt Moone.

In the Eaſtern-Eems & Burckumbalgh a ſ. ſ. e. and n. n. w. Moone.

Before the Channells betwixt the Eaſtern-Eems and the Weſer, a ſouth & ſouth and by eaſt, & a north & north & by weſt Moone.

In the fareway betwixt the Flye & the Elve, the foreflood commeth out of the North Sea, & turneth about by little and little with the Sunne falling the halfe tyde e. n. e. alongſt the ſhoare, & the Ebbe w. ſ. w.

Before the Weſer and Elve, and alſo in the Eyder a ſouth & north Moon maketh high water. The flood commeth there out of the n. w. & the Ebbe out of the ſ. e. and fall very ſtrong over the grounds that lye out there.

Under Holyland an n. e. & ſ. ſ. w. Moone maketh full Sea.

Of the Depths about theſe Places, and in what depths men may ſee the land.

Schiermonick-oogh men may ſee in 12 & 13 fathom four great leagues without the land.

Rottum and Borckum men may ſee in 14 and 15 fathom.

Thwart of Borckum the ground is groſſe red ſand, mingled with ſome black.

Juyſt men may ſee in 13 and 14 fathom, 3 leagues without the land, it is 12 fathom.

Buys and Norderny men may ſee from the Poop in 12 and 13 fathom.

Baltrum, Langeroog and Wrangeroogh, men may ſee it in 14 and 15 fathom.

Thwart of Botjadigerland, Reydingerland and Ditmarſen, the grounds lye ſo farre without the land, that you cannot ſee the Coaſts, except you clim be up into the top.

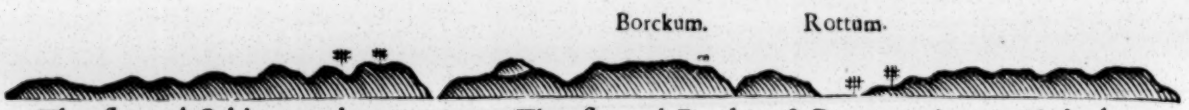
About Holyland it is deep 7, 8 and 9 fathom, to witt, on the inner-ſide, but without on the weſt-ſide 15, 16, 18 and 19 fathom, in ſuch depth you may ſee the land of Holyland from the weſtwards.

Courſes and Diſtances.

The Coaſt alongſt theſe Iſland lyeth e. n. e. and w. ſ. w.

From Borckum-Riffe to Wrangeroog e. n. e. 17 leagues
From the Eaſter-Eems or Juyſt Rif to the Steepbuy or Schortun e. n. e. 20 l.
From the Eems to Flambroug-head weſt ſomewhat northerly 77 leagues
From te Eems to Boevenbergen north and by eaſt 57 leagues
From the Eems to Holyland, the courſe is n. e. & n. e. & by eaſt 21 or 22 le.
From Wrangeroog to the New-worke e. n. e. 8 leagues
From the outermoſt buye upon the Elve to the Eyder north 7 or 8 leagues
From Langeroog to Holyland n. n. e. 10 leagues
Holyland and the outermoſt buye in the Weſer lye n. ſomewhat eaſterly, and ſouth ſomewhat weſterly. The buy upon the Head in the Weſer & Holyland lye north and ſouth aſunder 8 leagues
The Steep-buye on the New-worck & Holyland lye ſ. e. and by eaſt, and n. w. and by weſt aſunder. 8 leagues
The outermoſt Buy in the Eyder and Holyland lye eaſt ſomewat northerly, and weſt ſomewhat ſoutherly aſunder 7 or 8 leagues
From Holyland to the Holms, before Jarmouth, the courſe is w. ſ. w. or ſomewhat more weſterly 72 leagues
From Holyland to Scarbroug and Flambroug-head weſt, or ſomewat more ſoutherly 88 leagues
From Holyland to Tinmout or Newcaſtle w. ſomewat more northerly 106l.
From Holyland to Liet in Scotland, weſt and by north, and ſomewhat more northerly 120 leagues
From Holyland to Boeckenes n. w. and by weſt 128 leagues
From Holyland to Hanglip in Hitland n. w. 169 leagues
From Holyland to Boevenbergen north and by weſt 43 leagues
From Holyland to the Horne or Doodeberg north 25 leagues
From Holyland to Knuyts-deep or Ryper-deep, the courſe is north and north and by eaſt 20 leagues
From Holyland to the Deepe of Silt or Liſt north and by eaſt 17 leagues
From Holyland to Ameren, or Small-deep, the courſe is north northeaſt ſomewhat eaſterly 10 leagues
From Holyland to the outermoſt Buye in the Hever, northeaſt 8 leagues
When you lye by the outermoſt Buye in the Hever, in cleare weather, you may ſee Holyland.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth Schiermonckoog, being 2 leagues thwart off from you.

Thus ſheweth Borckum & Rottum, when you ſayle along by them, being 2 leagues a ſeaboard the land.



Thus ſheweth the Iſland Juyſt, being about 2 leagues off from you.

Thus ſheweth the Iſland Buys, being two leagues thwart off from you.



Thus ſheweth the Iſland Norderny, being 2 leagues thwart off from you.

Thus riſeth Baltrum, when you are about 2 leagues a ſeaboard the land.



Langeroog ſheweth it ſelfe thus, when you are about 2 leagues off from it.

Thus ſheweth Spyckeroog, when it is about 2 leagues from you.



Thus ſheweth Wrangeroog, when it is about 2 leagues thwart off from you.

Holyland n. e. & by e. 5 lea. from you, ſheweth it ſelfe thus.

Holyland northeaſt & by eaſt from you, ſheweth thus.

Thus ſhew the New-lant or New-worke, when you are at the entring of the Elve.

The third Demonſtration,

Where in

Are Deciphered the Sea-Coaſts of the weſt and eaſt-ſide of Jutland,

together with the Belt, untill you are paſt Laland and Langeland.

FROM the New-worcke, or Steepe-Buy to the Hever, the courſe is north 10 leagues, when you come about halfe wayes betwixt them both, you ſhall meet with the foreſayd ſand or tayle of Blavoort in the depth of 2 or 3 fathom. In this fareway you muſt be very carefull of your tydes, that you come not upon the grounds, which lye far out a ſeaboard the land, the foreflood fallath there very ſtrongh thwart over the grounds towards the land, and the ebbe to the contrary.

For to ſayle from Holyland to the Hever, goe on n. e. ſomewhat eaſterly, or according as the winde and tyde ſhal be, and runne towards the grounds, until you come in 6 or 7 fatum, & then you ſhall eſpye a ſteeple, which is ſharpe

and indifferent hig, called Pielworme, bring that n. e. & by north from you a maſts lengt to the ſouthwards of the ſoutermoſt Cow-houſe, upon the little Iſland Nuball, keepe that ſo ſtanding, & ſaile towards it, and you ſhall ſo finde the outermoſt buy, from that to the ſecond buy, goe on n.e. and n. e. and by eaſt being come to it, Pielworme ſteeple ſhall ſtand n. n. e. from you. From the ſecond buy alongſt inwards, the courſe is n. e. and by eaſt. Being come in ſo a good wayes, you ſhall finde two beakons on the ſtarboard ſide, upon a dry ſand, called the Quade, there over againſt commeth the north-balg in the rigt Hever. From the firſt beakon the ſecond and third, the courſe is eaſt and by north ſaile all alongſt by the beakons, leaving them on the ſtarboard ſide. To the northwards of them betwixt the firſt and third beakon, it is full of ſands and plates, where you might at unawares ſaile within. By the third beakon commeth the ſouther balg into the Hever. From that third beakon to the two other beakons, the courſe is n. e. and by eaſt being paſt that you ſhall come by the grene land on the ſtarboard ſide, there it is a ſquare deepe, large and broad channell, from thence you may ſaile alongſt a midſt the channell unto Hoeſem at the Bridge, or anchor thereabouts every where, where you will.

Without in the Hever the north-ſide is ſteepe, therefore keepe the ſouth-ſide untill you come within the beakons, in the channell is at halfe floud 2 fathom and a halfe water, and without the channell it is very farre flat. Somewhat without the Hever lyeth alſo a banck, whereof men muſt bee carefull when they will ſayle in there. A ſouth and norther Moone maketh there the higheſt water.

The Southbalg goeth into the ſoutwards of the foreſayd banck the Quade, in right with the little Iſland Utto, and alongſt to the northwards of it, it is from without a league and a halfe to ſayle to Utto. From Utto it lyeth in alongſt n. e. and by north, and commeth out into the Hever by the third beakon.

The north-balg lyeth into the northwards of the Hever about eaſt & by north or weſt & by ſouth from Pielworme, rigt in with the foreſaid little Iſland Nuball, which you muſt leave on the larboard ſide runningh in alongſt by it, and ſo come in to the Hever, againſt the foreſayd drye ſand the Quade: you may alſo (comming in at the north-balgh) ſayle up to the northwards from the Iſland Nuball unto the end of Strand, till you come thwart of a flat Church, and anchor there behind the ſhoals, that is a deepe balgh or Creek.

Small-Deepe.

THree or 4 leagues to the northwards of the Hever, lyeth the Small-deep. For to ſayle off from Holyland toward it, goe on n. e. & by north, & runne to the grounds, about weſt and by north, from the Pielworme, the ſouth-end of Ameren ſhall then bee north or thereabouts from you. Seek then to the ſouth-grounds, and ſound about by them, & there you cannot doe amiſſe, it is flat riſing ground farre without the land. On the north-ſide lye many ſands, ſhoals & points, that lye out, which men migt (without good heed-taking) ſaile within: ſaile in therefore alongſt by the ſouth-ſide north and by eaſt, n. n. e. and n. e. and by north, and ſo you ſhal finde one ſhoale or breach, leave that on the larboard ſide. If you leave that on the ſtarboard ſide, you ſhould runne into a Dead-balg or Creek, wherein is at the firſt at leaſt 7 fathom depth, but runneth at laſt by little and little to nothing: you may alſo runne alongſt by that foreſayd ſhoale by your lead, uutill you come within it, comming then thwart of the ſouth-end of Ameren, you might unawares ſeyle within the South-grounds behinde a ſhoare which ſhoteth off from the grounds of Vooren, therefore keepe the ſouth-ſide untill that you come thwart of the Iſland Vooren.

The Red-Deepe.

FOR to ſaile in at the Red or Silter-deepe, comming from the northwards, or out of the Sea, run in ſigt of the Iland Ameren. About the middeſt of Ameren lyeth a white round hill, a little higher then the other hommocks in a low playne valley. Bring that northeaſt from you, and run in ſo right wit it, untill you come within the riffe that ſhooteth off from the Voortrap, and commonly is called Ameren Borne, and ſo you cannot take any hurt of it, and then you ſhall have upon the poynt of the Riffe not leſſe then 3 fatum water, and within the ſame riffe 11, 12 or 13 fatum. Sayle ſo in untill that the north-end of Ameren be north and by eaſt from you, and then run in right with the north-end of Ameren, untill you come within the dry ſand, and there you may anchor where you pleaſe, or ſaile ſo farre in as you will, and ſound it all alongſt by the riffe.

The Strand of Ameren is a fayre Strand without any tayles that men migt ſaile within. When the foreſayd hil upon Ameren is e. n. e. from you, and ſayle ſo rigt with it, then you run to neare the foreſayd riffe of Silt, the hill is then alſo in two parts, the northermoſt is then the ſmalleſt.

For to ſayle in at the Red-deepe or Silter-deepe, comming off from Holyland, & that you have gotten ſigt of the land, then bring the north-end of Ameren north and by eaſt from you, untill that you be come in betwixt Ameren, and the riffe of Silt, runne then in alongſt by the ſtrand of Ameren, untill you come about the north-poynt of Ameren and ſo along to the eaſtwards, untill that Ameren lye ſouth and ſ. ſ. w. from you. You may not ſayle into this channell further to the caſtwards, for then you come againſt the Iſland of Vooren, but you may ſayle to the northwards alongſt betwixt Vooren & Silt, till you come before Lit. In Silter-deepe is upon the ſhoaleſt 3 fatom water, being over it, there is againe 8, 9, 10 and 12 fathom, there lye two riffes or bad ſands, the one about w. ſ. w. from Ameren dry above water, that is very farre flat, to witt, in 3, 4 or 5 fathom, it is called of the Juthers the Borne or Ameren-Borne, althoug that it be not faſt to Ameren, for the Red-deep goeth in betwixt them both. It is not alſo faſt unto the Voor-traps, or that ſouth-end of Silt, althoug it commeth ſhootingh of from it, betwixt them goeth out into Sea a deepe of about a fathom and a halfe, where the Fiſhermen doe dayly goe out throug for to Fiſh, eſpecialy thoſe of the Iſland Vooren, this is the outermoſt ſand that lyeth on this Coaſt. They that uſe this coaſt much: eyther for Rypen, or the Quartes there abouts are hery much afrayd for this Ameren-Borne, when they come of from Holyland, they find this ſhoale about w. ſ. w. from Ameren.

The other ſand ſhoteth of from the ſouth-end of Ameren, lyingh about ſouth and ſouth and by weſt into the ſea alongſt the land, that is alſo called by many the Borne, or Ameren-Born. He that commeth of from Holyland, and is bound to the northwards, need not feere ſo much for the ſhoale, for it ſhooteth out moſt by the land.

The Haven of Liſt.

ABout eight leagues to the northwards of Silter-deep lyet the haven of Liſt, which runneth in by the north-end of the Iſland Silt. For to ſaile in there, comming from the ſouthwards, runne ſo longh to the northwards in ſix or ſeven fathom, that you may ſee a little Iſland without the poynt (which lyeth within theſe outer Iſland) upon which ſtandeth a houſe, called Jeurtmans-houſe: when that houſe commeth a maſt length without the poynt of Liſt, then goe in eaſt and by ſouth, and eaſt ſoutheaſt, keepe thoſe markes ſo ſtanding, untill that you bee within the poynt of Liſt, edge then up to the ſouthwards about the poynt, and anchor before the Vuchts-houſe, there it is nine and tenne fathom deep. At the entingh of the channell lyeth a plate or ſand, called Haef-ſand, that you ſhall leave on the larboard ſide, when you come in, it is on the off-ſide very flat, and good for to ſound when you come from the northwards. For to avoyd that when you come from the northwards, edge of ſo far from the ſhoare, that the red Cliffe come without the ſand-hills, or that you may ſee it playnely: Then you may well goe over Haef-ſand, with a ſhip that is not of a very great draugt. Likewiſe when you come out at the channell of Liſt, and are bound to the northwards, ſayle ſo farre out that you may ſee the Cliffe, and then

then you may goe over the foreſaid ſand, which lyeth from the ſouth-end of Rem a good wayes into Sea.

On the ſoud-ſide of the channel of Liſt lye alſo two ſands or banks alongſt the ſhoare, not very farre without the ſtrand, the innermoſt or northermoſt is called Barling-ſand and the outermoſt Ruſt, or Ruſting, that lyet to the ſouthwards almoſt thwart of the red Cliffe, betwixt theſe ſands, and the ſtrand of Silt goeth in the Land-deep. For to ſayl in there comming from the ſouthwards, you muſt ſeek betimes to the ſtrand of Liſt about the red Cliffe, becauſe of the Ruſt which lyeth of from the north-end of Liſt a little without the ſtrand. When that you have the ſounding of the ſhoare, and are come ſomewhat within that red Cliff, there ſhall meet you a flat from the ſhoare, which you muſt ſomewhat avoyd, and then you may ſound very wel: keep al alongſt the foot ſtrand, there you can take no hurt of it. From the inner-point of Liſt ſhooteth of alſo a little riffe, where of you muſt take heed. When that you are come within the Innermoſt-point of Liſt, then you may anchor where you pleaſe. If you will goe to Lutke Tonderen, then leave that ſand (which lyeth to the ſouthwards of Jureſand) on the ſtarboard-ſide, and runne throug betwixt them both. He that is bound to Hoeſem or Silt over the Watt, muſt leave that ſand on the larboard-ſide. Upon Vooren ſtand two or three trees, theſe you muſt keepe over the weſtermoſt Church or ſteeple, and run ſo alongſt unto Vooren.

Betwixt the Ruſt and Barling-ſand goeth a faire deep channel throug, called the New-deepe, rigt in alongſt to the ſouthwards of Rock-ſand, that is a ſhoale which lyeth to Sea-wards of Ruſt & Barling-ſand. For to ſaile in at that New-deepe, bring the white cliffe upon Silt eaſt, and eaſt and by north from you and run in ſo rigt with it, and you ſhall ſal rigt in the New-deep betwixt the two banckes, leaving Rokſand or the Maber on the larboard-ſide of you, run in ſo alongſt by Ruſt, but come alſo no nearer to it then in 4 fatum, untill that you come into the Land-deep, but comming againſt the ſhoare, and getting ſhoaling of the ſtrand, run in alongſt by the foot ſtrand on inwardes, as is rehearſed in the deſcription of the Land-deep.

Betwixt Haef-ſand, or Hacs-ſand, and the Iſland of Rem goeth in yet a little Land-deep of about a fathom & a halfe water. The Iſland Rem is 3 leagues long, and very flat on the off-ſide, ſo that you ſhal ſcarce ſee that land in 6 or 7 fathom.

About 8 or 9 leagues a ſeaboard of the Iſland Silt lyeth another banck alongh the ſhoare of 8 or 9 fathom, and is about two leagues long, about ſo long as the Iſland is. Betwixt this Bancke and the Iſland it is 13 fatum deepe, being in 9 fatum a ſeaboard the Iſland Silt, then lyeth Holyland about ſouth from you.

Knuytsdeep or Ripperdeep.

FRom the channell of Liſt to Knuyts or Ryper-deep the courſe is north & ſouth about 7 leagues, but Ryperdeepe & Holyland lye north ſomewhat weſterly, & ſouth ſomewhat eaſterly one from the other, for to ſaile in to Knuyts or Ryper-deep comming from the ſouthwards, run about by the flat of Rem & Manu towards the ſouth-end of Phanu, called ſouther-head, or Souther-heig, & ſo you ſhall ſee two Capes upon a drye ſand, ſomewhat to the ſoudwards of Souterhead, bring thoſe Capes a little throug one another, to with the innermoſt or longſt a little or a handſpikes lengt to the northwards of the ſhorteſt or outermoſt and then they ſhall ſtand e. n. e. from you, keep them ſo ſtanding, & ſayle rigt in with them, and ſo you ſhall finde the outermoſt buye, lying on the north ſhoare in 4 fatum in the channell, called Old Ruper-deepe, leave that buye on the larboard-ſide, and then goe inwards eaſt & by n. e. and eaſt and by ſouth unto the ſecond buye, you muſt runne alſo about to the ſouthwards of it, for thwart of it commeth a ſhoale ſhoting of from the north ſhoare from the outermoſt Cape towardes the ſecond buye, which you muſt avoyd.

Or keepe the ſounding of the ſouth ſhoare called Coerſand and run by your lead firſt eaſt and by north, then eaſt, & at laſt eaſt & by ſouth in by it, you ſhall finde there upon the ſhoaleſt not leſſe then 10 foot at low water and common tyde; there within it is again 6, 7 & 8 fatum deepe. Being paſt the Capes, then luffe up to the northwards, about the ſand where the Capes ſtand upon, & anchor there where you pleaſe, there it is wide & broad, and alſo deep and ſteepe, ſo that there you can take no hurt. The Ryper ſhips that are bound out, doe lye there for to ſtay for a wind. Behinde the Iſland Manu it is 6 and 7 fatum deepe, there alſo men may ride from thence you may go up the deep to Rypen, but not up alongſt to Rype with great ſhips, cloſe to Rypen the deep endeth, ſo that there is a ſhoale neek betwixt both, where there is no mor then 6 foot depth. With ſmal ſhips you may alſo ſayle about behind Rem towards Jurſand, there is at low water about 7 foot water.

Comming from the northwards for to ſayl to Ryperdeepe, you ſhall alſo runne on to the ſouth-end of Phanu, untill that you ſhall eſpye the foreſayd Capes, & goe then further as is a bove taugt. This channell is not the beſt channell in foule weather, for it is narrow & farre of ſhoale without it: but when you ſhal bee entred into, you may eaſily ſee both ſides break, if it blow any thing hard.

A f.f.w. & n.n.e. Moon maket here the higheſt water.

The Growe-Deep.

ABout n. e. or n. e. and by north from the north-end of Phanu lyeth a little Hill, called Luysberg: a little to the northwards of it lyeth a long plaine Sandhil, called Langeleg: from thence lyeth the land towards Zuyder-zyt w. n. w. and e. ſ e.

Betwixt the north-point of Phanu & Langeleg goeth in that Growe-deep. For to ſail in there when you come from the ſouthwards, run alongſt the Iſland Phanu, and about by the north-end of it (which is farre flat.) When as that you get deeper water, you ſhal ſee three or four hommocks about n. e. from you, upon the hig land with a little ſteeple, called Holm, or Bruynum. Bring that little Church a Cables length to the northwards of the Hommocks, goe in then n. e. and keep the ſouth ſhoare, untill you come within that dry ſand, which ſhooteth of from Phanu called Smeurſand, you may run to that upon your ſigt without doing amiſſe, but leave that on the ſtarboard-ſide when you come in. The ſhoares are there about of them very ſteepe, as well Wiſdike, (that is the Plate which lyeth in the channel) as alſo Smeurſand, but without the ſhoares are flat. When you are paſt the poynt of Smeurſand, edge then over to Wisdike, & anchor there untill that you have the loweſt water, and then you may ſayle to Hartingen, and go on forth to Wardt, or Woerdt; which lyeth 8 or 9 leagues within the land, the river is very crooked; upon the which here and there lyeth a Gentelmans houſe.

Lange-leg.

Smeur-ſand.

Wardt.

A f.f. w. and n. n. e. Moon maketh there the higheſt water, and there floweth with a common tyde about a fatum up and down.

From Phanu to Schellingkroeg it is four leagues, betwixt them lyeth Zuyder-zyt a little river of eigt or nine foot water. The land betwixt Langeleg and Zuyder-zyt is ragged land with ſand-hilles, and roug, being grown with ſpirie graſſe, or heath. If you ſhould fall with the land at Zuyder-zyt, and that you could not lead it into the channell, then chooſe the land of Langeleg, you may run to it without danger, keepe in two fathum and a halfe, and you cannot ſuyle amiſſe of this Kroeg: for you may ſound this land all alongſt in 2 fathom and a halfe off from Langeleg untill you come within Schelling-kroeg, but if you run in three fathum or three fathum and a halfe, you ſhall ſayle without the drieſand, and run about a ſeaboard of the forenamed Kroegh. Schellingh-kroegh lyeth in moſt northweſt, men lye there within ſheltred for all winds, like as men doe lye at Coningsborough in the Kettell. If ſo bee that you come from the northwards, and are bound into this Haven or Kroegh, you may run about by that drye ſand in three fathum, when you come by the Innermoſt point of that drie ſand, there ſhooteth of a little tayle of ſand, but you may ſee it well, and keepe your ſelfe

Schelling-kroeg. Zuyder zyt.

from it: when you come to the eaſt-end of that ſand, ſuffe up about it, untill you come into that Kroeg, & anchor there in two fathom & a foot, it is there very wide, you may make there a good board, and turne it in to windwards. A ſ. ſ. w. and n. n. e. Moone maketh there the higheſt water, the farther you come to the northwards to Jutland, the leſſe tyde goeth, and the leſſe it floweth up & downe.

Dodenbergh. At the nord-end of the foreſaid drie ſand lyet the Dodenberg, that is a ſhort hommock of a Sand-hill, which lyeth alone. When you are ſomewhat off from it, then it lyeth under the other land, that you cannot ſee it, when you come from the ſouthwards or the northwards you may ſee it. From the Doodenberg unto that ſouth-end of the drie ſand, it is all alongſt a faire ſtrand, and flat grounds. For to ride under the drie ſand, you may ſound about it comming from the northwards, and get ſmooth water for a n. w. wind, and alſo for weſterly windes.

A little to the northwards of the Doodenberg lyeth the point called the Horne betwixt Zuyder-zyt and Weſter-zyt making there a Horn of the land: to the ſouthwards of it the coaſt lyeth e. ſ. e. & w. n. w. towardes the Growe-deepe: to the northwards of it north, and ſouth towardes Weſter-zyt. Weſter-zyt is a village lying betwixt the Blawenberg & the Horne.

Reefs-horne. About this point or Horne runnet of a long bank about 11 leagues w. ſ. w. into Sea: called Reefshorne, or as ſome do name it Devilhorne, which lyeth a ſome places altogether drye, ſpecially 7 or 8 legaues from the ſhoare, where it is not deeper then two fathom and a halfe, or three fatum a foote leſſe. A ſhippe that ſayleth upon it, men can but even ſee it from the land it is at the deepeſt by the land, to witt foure fathom lacking a foot. He that commeth there from the northwards with a ſhipp of a great draugt muſt take verie good heed, for it is upon n. w. ſide of ſteepe, that men ſhal have one caſte 22 the next caſt 15 & the third caſt no more then three fathom.

The Horne. When you fall with the land with Weſter-zyt or to the northwards of Reefſhorne, you may ſound alongſt by the ſhoare in 6 or 7 fatum, untill you come neare the foreſaid Horne: you ſhall then alſo finde anoter ſhoale Reffe, that runnet of from the land, called the Owle, which is alſo very ſteepe on the northſide: from the northwards you may not come nearer it, then in 7 fatum. A little to the ſouthwardes of it beginnet Reefſhorne to runne of from the ſhoare, it is there narrowe bank, you ſhal not finde there leſſe then three fathom, or three fathom lacking a foot water, at two or three caſt or according as it ſhall blowe hard or ſoft, & that you ſhall make your waye, & then you ſhall get preſently againe five fathom, & ſound it about by that ſhoale ſand, wheter you deſire to bee.

According to the opinion of ſome, Doggers-ſand beginnet from this bank. When men ſette ſaile early in the morning out of Rinkopper deepe, with a ſ. w. waye, & a good n. e. winde, then they are about four of the clock in the afternoone yet in 9 fatum, whereby it ſhould appeare, that Doggers-ſand ſhould have his beginning a this banck.

For to know the land there abouts: About 4 leagues to the northwardes of the foreſaid Horne lyet a hig hil a little from the ſtrand, called the Blawenberg, going playn downe on both ſides, which is ſomewhat blacker then the other land, being grown with ſpyrie graſſe, to the ſouthwards of this Blawenberg lyeth that fiſhers village Weſter-zyt, betwixt that village & the Horne lyeth one Black hommock, and alſo a Gentelmans houſe, otherwiſe the land is altogether full of hommocks.

Rinkopper-Deep.

TO the northwards of the foreſaid Blawenberg lye thre or four lowe white Sand-hills, & by the haven of Numen alſo two great white Sand-hills cloſe one by the other. To the northwardes of theſe Sand-hills runneth of that Haven of Numen, the land lyeth betwixt the haven of Numen, & the Doodenberg, moſt ſouth & north about 7 leagues, all alongſt a faire ſtrand: the beſt to bee knowne of this Coaſt, is the foreſaid Blawenberg and theſe two foreſaid white Sand-hills.

For to ſayle into Rinkopper-deep or the Haven of Numen runne alongſt by the land of Weſter-zyt, in 6 or 7 fatum, untill that you come to the two foreſayd great white Sand-hilles, & then you ſhall ſee upon a low land two capes, upon each of them ſtandeth a barrel: Bring them one in the other, & then they ſhal ſtand north or north & by eaſt from you, ſaile in rigt with them, & you ſhall finde a buye, except it be laide ſomewhere els. Rigt before the haven of Numen lyeth a Sand-plate, named Gladde-Jaep. For to ſaile into the ſouther channell, then leave that plate on the larboard-ſide, & run in cloſe by the ſouth ſhoare or foot ſtrand (where the a foreſaid white Sandhilles doe lye upon) rigt with the capes, and there you cannot doe amiſſe, but runne in boldly by it upon your lead, that is the very ſureſt way of all to ſail in alongſt by the ſtrand, when men are careſull of the lead.

Being paſt Gladde-Jaep, runne then towards the north ſhoare, you may ſaile about by it ſo cloſe as you will, it is a lowe playne point, altogether cleane & very ſteepe when you are come within this point, you may anchor where you pleaſe. This channell lyeth in moſt north & north & by eaſt until you come within Gladde-Jaep, and then ſomewhat more eaſterly towards the foreſayd point. In this channell goeth an indifferent ſtrong tyde, becauſe there lyeth ſuch a great ſound within. It floweth there little up & downe, no more then two foot & a halfe, with a common tyde. A ſ. w. & n. e. Moone maketh there the higheſt water. Rigt to the northwardes of Gladde-Jaep runneth in another channell, but there is no more but 8 foot water.

Further within the Haven of Numen it is Pilots water, but ſhippes that are not of great draugt may well ſaile up, eſpecially at low water. The deepe runneth alongſt by the ſtrand of Nunis keeping alongſt by it, you cannot doe amiſſe: ſo ſoone as you goe of from it, you ſhall bee in danger to ſaile within the ſhoares or tayles, which lye of from the Ward towardes the land of Numit, therefore runne cloſe alongſt by the foreſaid ſtrand of Numit ſo long, untill that the little church with a flatt ſteeple (bee about eaſt from you againſt the hig land of the Holme) come to the ſouthſide of the high land: then you are within the tailes & ſands that lye out, leave then the ſtrande, & goe in n. n. e. and northeaſt and by north, untill that a round hommock come cloſe to the ſouthwardes, or rigt over a little blew Church upon the hig lands of Holme. Goe then in alongſt northeaſt & by eaſt until that the foreſaid little blew Church commeth over a Gentlemans-houſe, beneath in the low land, cloſe to the water. Sayle then on north, and by little and little north & by eaſt, untill you come before Rinkoppen, it is there broade, large and wide, and the rigt deep two fathom and two foote.

Rinkoppen and the havens mouth of Numen lye four leagues aſunder, it one from the other.

To the northwardes of Rinkoppen goeth a little river into the land, upon which ly two little townes, ſeven or eight leagues in the land, the one named Hoſtebro and the other Huys-buy.

A halfe league to the ſouthwardes of Bovenbergen goet in yet anoter little haven inwardes out of the Sea, numed Tromſmone, there ſtand two maſtes, you muſt keepe them one in the other, & runne ſo into it: there lyeth a little village within called Troſmonde. From thence you may ſaile over the Wardt to Rinkoppen.

This little haven is not to be reckoned for a Haven becauſe ſometimes it is eaſt to, and ſometimes there may goe in and out againe Boates or Crayers and ſmall ſhippes.

From Rinkopper Deepe or the Haven of Numen to Boevenbergen the land lyeth moſt north & ſouth 10 leagues, there is all alongſt betwixt them both a faire ſtrand, with ſand-hills, growne with ſpyrie graſſe.

When you ſayle alongſt by it, you may ſee the blew double land of Rinkoppen, (called the Holmes) alonghſt over this land.

Betwixt Boevenbergen & the Reefhorne lye ſome bankes of 7, 8 & 9 fathom, & alſo ſome that are deeper.

Boevenberg is a long ſmooth hill having in the middeſt a hig round hommoc or hill, and upon that hill ſtandeth a church with a ſteeple: when you come thwart to land with Boevenbergen, it ſhewet it ſelfe in three hilles, the middle-

moſt

moſt is the higheſt, upon which ſtandeth the foreſayd Church with a flat ſteeple: upon both ſides of that hill ſtand alſo other Churches, but they are not ſo hig: you may ſee the land in 13 and 14 fathom, the ground is groſſe red ſand with ſome little ſtones there in.

When Boevenbergen is e. n. e. from you, it ſheweth it ſelf in a longh hill, with ſome dale in the middeſt on the north-ſide, with a Church, & alſo a Church on the ſouth-ſide, & alſo another hill to the northwardes of it.

From Boevenbergen to the Holmes the land lyeth north northeaſt 9 or 10 leagues, betwixt them it falleth in with a Bigt, it is blak land with hommoks, & ſandhilles growen with ſpyrie graſſe, here & there ſtandeth a flat ſteeple in the land.

About five leagues from land lyet a banke of ten fathum, but it laſteth not long before you get againe deeper water.

Betwixt Boevenbergen & the Holmes lyet the great Juttiſh Riffe weſt into Sea, running over it in 12 or 13 fatum, then lyeth the Naze from you, n.w. & by north 24 leagues, running over it in 17 or 18 fatum, you may ſee the land, on the north-ſide it is groſſe ſand, on the ſouth-ſide ſtonie like as peaſe and beanes.

Weſt northweſt from Boevenbergen about 8 leagues it is 16 fatum deepe, groſſe ſtonie ſand ground 10 leagues from the land it is 20 fatum deep groſſe ſtonie land, like to peaſe.

Southweſt & by weſt from Boevenbergen about 9 leagues, it is 25 fatum deep, redde & black ſand ground that is the ground of Doggers-ſand.

The Holmes is a plain pointe, going downe ſteepe on the northeaſt-ſide, upon the middeſt of the hill ſtandeth aſquare Church without a ſteeple. When that higheſt of the land is ſ. ſ. e. from you, and that you can but even ſee the north-end of it, then it 15 fatum deep, groſſe roug ſand, with ſome little ſtones amongſt it.

Two leagues n. e. or as ſome ſay, ſomewhat more eaſterley, off from the north-pointe of the Holmes: to wit, betwixt the north-poynte and the Holmes, & the eaſter-pointe, lyeth a ſtone banck (in manner as the Trindel or Leſolde) upon which there is no more then 12 foot water, ſo that there remaineth about two third parts of the water betwixt that Stone-banck & the north-point, & the other third parte betwixt the eaſter-pointe and the foreſayd Stone-banck: there have divers ſhippes beene loſt upon it. The foreſaid eaſter-point lyeth about 4 leagues to the eaſtwards of the Holmes, and is alſo a hig ſteep poynt, as if it where the Holmes. Rigt thwart of this eaſter-point ſhooteth off a riffe almoſt a league of into Sea, which you may ſound about in 7 fathom. Some ſay, that men may ſayl through betwixt that riffe and the land.

From the Holmes to Robſnot or Robbeknuyt, the courſe is n. e. 9 or 10 leagues.

A little to the weſtwards of Robſnot in the bigt towards the eaſtern-poynte, neareſt to Robſnot ſtand 5 Churches with flat ſteeples. There lye alſo two blewe lands, betwixt the eaſter-pointe and Robſnot, in the hig, you may ſee alſo a cloven hill or ſand-hill before you come to Robſnot. It is there all alongſt a flatt ſtrand.

To the eaſtwardes of the Holmes goeth in a little river called Miſdorp.

A little to the weſtwardes of that white cliffe or of Robſnot goeth in alſo a little River, where upon lyeth a little towne called Werlom.

Robſnot or Robbeknuyt is a high round hill, upon the toppe where of ſtandeth a Church with a ſharpe ſteeple. The land fallet away to the eaſtwards from this point, with a great bigt towards Hartſhals.

Thwart of Robſnot is farre off flat, 15 fatum depth, is allmoſt 3 leagues from the ſhoare.

There alſo thwart of Robſnot about 4 leagues from the ſhoare lyeth a banck off 9 fathom, lying alongſt the ſhoare.

Thwart of Robſnot lyeth alſo a roc about a league from the land.

From Robſnot to Hartſhals is n. e. & by eaſt 4 leagues, there ſtandeth a flat ſteeple betwixt both, neareſt to Robſnot, there you may ſee the hig land of Lackley, alongſt over that hig land.

Hartſhals is a long ſmooth hill, which is at the eaſt-end ſomewhat ſteep.

Thwart of Hartſhals lyeth a ſhoale or ſtony grounds, about an Engliſh mile from the ſhoare, upon which, (as men ſayle) there have beene ſhippes loſt, but men doe ſeldome come neare it.

From Hartſhals to the Scawe or Schagen the courſe is e. n. n. 8 leagues. The Scawes

The land to the eaſtwards of Hartſhals is altogether ful of hommocks & ſand-hills, you may ſee the hig land of Lackley alſo alongſt over this land. Alongſt theſe coaſtes men finde none ſuch long plaine hilles, as are Boevenbergen, the Holms, Hartſhals and Robſnot.

Somewhat within the point of the Scawe ſtandeth a flat Church with a flat ſteeple, called Old Schagen, when that is ſ. ſ. e. from you, there runneth off from the ſhoare a little ſpitt or ſhoale; there you muſt edge ſomewhat off from the ſhoare, otherwiſe it is al alongſt a ſteep ſtrand betwixt Hartshals and the Scawe, but you may ſound about this little ſand in 4 and 5 fatum, ſo neare as you will.

Upon the eaſt-end or outermoſt point of the Scawe, ſtandet a fire beakon, like a cape to ſe to: when the Church is ſ. w. and by weſt from you, then are the fire beakon and the ſteeple on the other, and then you are rigt thwart of the riffe of the Scawe, which lyeth of from the point e.n.e. & by north allmoſt a league into Sea.

He that commet from the weſtward, and wil ſaile alongſt by the land, about the riffe, muſt eſpecially be verie careſull in uſing the lead, he may take the ſounding of the ſhoare, ſo neare as he will, according as the winde ſhal be, in eight, ſeven, ſix, five, four, alſo wel in tree fatum, without doing amiſſe, he neede not to feare: If he be but careful in uſing his lead, with a ſouthweſt winde, he may ſail about it in tree or four fatum.

When the fire beacon commeth to the eaſt-ſide of the houſes of the Scawe, then you come againſt the weſt-ſide of the riffe, when the fire beakon & the Church are one in the other, then you are on the eaſt-ſide of the Riffe.

When the fire beakon commeth about halfe wayes the houſes, neareſt the weſt-ſide, then you are right upon the point of the Riffe, what depth that you haven then you ſhal keep it ſtil, without finding it ſhoaler, whether you ſayle alongſt ſoutheaſt or northweſt.

He that commeth from the ſouthwards, and is bound about the Scaw to the weſtwards may not ſound the Riffe, becauſe the ſouth-ſide of it is ſteepe & needle to, it is not good to come neare it then 12, 13 or 14 fatum, eſpecially nigt or darke weather.

For to knowne by certaine markes, when you are cleare of this Riffe, as wel over the one ſide as the other, then marke, comming from the weſtwards, when the old church and the fire-beakon are one in the other, then you come upon, the weſt-ſide of the Riffe: comming from the ſouthwardes or the eaſtwardes, when the old Church commeth in the ſoud-end of the village, then you come upon the ſoud ſide of the Riffe. When the ſteeple & fire-beakon are ſ. w. and by weſt from you, then they are one in the other, & then you are thwart of that Riffe. When the ſteeple is ſ.w. and ſ. w. and by ſouth from you, then you are without, or to the weſtwardes of that Riffe: when the ſteeple or fire-beakon is w. ſ. w. and weſt and by ſouth from you, then you are within the riffe. This you may ſet by nigt, by the compaſſe, and ſo may perceive wether you be within or without that riffe, when the Firemaker doth fire well. You may anchor on both ſides of the Riffe in 7 or 8 fatum, & haven come enoug to ſet ſayle. Some alſo ſay, that men may irunne throug betwixt the riffe & the land: (If neede require 2 fatum & a half. Marks of the Scawe riffe.

Betwixt the Scaw and Maelſtrand or Norwaye it is all ſoft ground, the nearer or Norway the deeper water. When men come out of the Sound, & are in the fareway, & can gett no ground in 18, 20 & 22 fatum, that is a ſigne that they are about the riffe of the Scawe. Tydes out of the Belt.

When you come about the Scawe from the weſtwardes, and are bound to the Sound or the Belt, you muſt take an eſpeciall care of the tyde that commeth out of the Belt, which falleth commonly out of the Belt towardes Norwaye, eſpecially when the winde hath blown a while

while eaſt or northeaſt it can carry a ſhip by night or darke weather under Norwaye, before you ſhould thincke of it, it did happen in the Yeare 1605 the 23 of May, that a ſhippe comming thwart of the riffe of the Scawe, ſo that the riffe did ly ſ. w. from her, did drive with calmes in 8 houres, untill ſhee came within 3 leagues neare to the land of n. e. about Harmens hooft five leagues to the weſtwards of Maelſtrand, ſo great and ſtrong a current there did ſhote alongſt by the Riffe towards the n. e. although it doth ſeldome happen, that the tyde doth run there ſo ſtrong out, yet nevertheleſſe it behooveth men to be verie careſull, to conſider there of, and to reckon there upon.

From the Scaw to Sea-buye, the courſe is w. & by weſt 6 leagues, there it is upon the road 4 and 5 fathom deep. Betwixt the Scaw & Sea-buye lye the ſmall Helmes 4 leagues from the Scaw, and 2 leagues to the northwards of Sea-buye. When you will ſayle unto the Belt, you muſt leave them on the ſtarboard-ſide, going on ſtill ſouth and by w. untill thwart of Sea-buy, you may alſo ſayle throug betwixt the Helmes & the main land unto Sea-buy, if you will, there is at the ſhoaleſt betwixt them 3 fathom water, but about a Sea-board the Helmes, betwixt the Helmes & the north-end of Leſou, it is 4 leagues broad, and in the channell 10 fathom deep ſoft ground.

The lying of the Helmes, & how men ſhall come to anchor there, & alſo of all depths, ſhoale and dwale grounds, betwixt the Helmes, the Scaw, and Leſou, together with the deſcription of the Iſland Leſow and the Riffes that lye out there about it is deſcribed before.

Betwixt Leſou & Sea-buy lye many falſe grounds, which are very uneven of 3, 4, 5 & 6 fathom the like uneven and ſhoale grounds, lye alſo within or to the ſouthwards of Sea-buy, of 4, 5 and 6 fathom, but to the right channell through betwixt the falſe grounds of Leſou, & the ſhoals of Sea-buy is 7 & 8 fathom deep.

To the ſouthwards of the ſmall Helms and Sea-buy, nerer to the maineland then Leſou, lye alſo ſome uneven dwale grounds, upon which there is no more water then 10, 11 and at ſome places 12 foot. He that draweth but 8 or 9 foot need not feare of them. You may for a need run through the ſmall Helmes.

For to ſayle in to Aelburger deep.

From Sea-buy to Aelburger-deepe, ſ. & by w. 9 leagues, upon the north-ſide of the haven ſtandeth a flat ſteeple, called Hals, in the havens mouth lyeth a buy, and upon the ſouth land ſtand 2 Capes, which you muſt bring one in the other, by them you ſhall finde the buye, the channell lyeth in firſt w. & by ſ. about a cables length, then you muſt run up n. w. & w. rigt unto Hals, & run in by the north ſhoare, untill thwart of Hals from the ſouthpoint of the land ſhotet off a flat, which you muſt avoyd: being thwart of Hals you muſt goe ſ. w. & by w. unto the Bight, and in the croked channel, you muſt ſhun the north ſhoare ſomewhat, & then againe n. w. & by w. alongſt by the north-ſide, unto the ſecond croked, and then ſ. ſ. w. & afterwards w. ſ. w. unto the Town, in the comming in by the buye, it is 2 fathom. But for to ſayle in there, it is beſt to take a Pilot. By the ſouth-ſhoare goeth in alſo a little deepe of 6 and 7 foot.

The towne Aelburg, lyeth up in the land 4 leagues, within the River: alſo there lyet along this coaſt to the weſtwards ſome bancks, there you muſt ſhunne the land ſomewhat.

When you ſayl from the Helmes to Stevens-head, throug betwixt the dwale-grounds and the flat of Sea-buy, you ſhall meet with a ſhoale ground, about half wayes betwixt Stevens-head and Sea-buy or 5, 6 & 7 fathom. This ſhoale is called the Swetering, & lyeth about 3 leagues eaſtwards from Aelburg-deep, the channell there betwixt them is about 10 or 12 fathom deep.

The Sweteringh.

From Aelburgh-deep to Haſelin, the courſe is ſ. e. and by eaſt about 20 leagues.

Stevens head.

From Aelburg-deep to Stevens-head, the courſe is ſ. e. & by ſouth about 9 leagues. There betwixt them the land lyeth in a great Bay, where in lye the two little Townes Mariaker and Randerſen. Mariaker lyeth from Aelburgh-deep ſouth and ſouth & by weſt 4 leagues, & from Stevens-head 5 leagues. Betwixt Mariaker and Stevens-haven lyeth the River of Randerſen, which runneth up Crooked farre in to the land, unto the little Town Schandelburgh.

Mariaker.

Randerſen.

Under the wood of Mariaker runneth a riffe from the ſhoare, and ſtretcheth neere to Stevens-hooft, by Mariacker neere unto the ſhoare it is 12 foote, and further 3 & 4 fathom faye ſandy ground, within the riffe it is 6 and a halfe & 7 fathom ſoft ground, a little without Stevens-hooft it is ſtony ground but neere the ſhoare it is ſandy ground.

From Stevenshead to Haſelin the courſe is e. ſ. e. 13 leag. Haſelin is on the outer-ſide ſul of ſhoales, riffes & grounds. A larger deſcription of Haſelin and Anout as alſo of all the foule grounds and ſhoals, lying there abouts, you ſhall finde in the firſt Demonſtration of this Boock.

A little to the ſouthwards of Stevens-head lyeth a little Town called Oruntbuy, there lye the Chalck-grounds rigt before the River of Grimſound in a bay a little about the poynt of Stevens-head: that is a ſand 2 or 3 foot water, but not far off it is 10 fathom deep, you may ſound them in 4 fatum. You may ſaile up into Grimſound, unto Grimſtee, that is a lading place for Huyes.

From Stevens-head unto the great Helme, the courſe is ſ. ſ. w. about 6 leagues. The land lyeth from Stevens-head unto the poynt of Ebeltud ſ. ſ. w. 7 or 8 leagues. Ebeltud is a little Towne, lying within the land thward of the great Helme. Betwixt the great Helme and Jutland it is 6 and 7 fathom deepe. Cloſe by Stevens-head and the poynt of Ebeltud it is 8, 9 and alſo 10 fathom deepe. The great Helme hath two Riffes, one upon the northeaſt-ſide, and the other upon the ſouthweſt-ſide.

From Stevens-head to Siero the courſe is ſ. ſ. e. & ſ. e. & by ſouth 9 leagues. Betweene Siero & Stevens-hooft lye ſome ſhallowes, but neere Stevens-hooft there upon it is 3 and 4 fathom deepe.

From the ſoutheaſt-poynt of Syero lyeth off a riffe towards Ruſnes, where you may anchor behind it.

From the great Helme unto the Iſland Wero, the courſe is n. n. w. and ſ. ſ. e. 4 leagues diſtand, there it is 4 & 5 fatum deep. From Wero there runnet off a ſhoale unto Kyholm & about Kyholm: and about Kyholme and alſo about the little Iſland Samps, it is alſo full of ſhoale grounds, which run off unto the great Iſland Sampſo.

From the great Helm unto the Iſland Samps it is ſ. w. & northeaſt 4 leagues.

From the north-end of Iſland Sampſo there ſhoteth of a little Riffe north into the ſea, you muſt ſound cloſe about by it for to come into the road of Sampſo, when you wil anchor there. It is there in the road 10 fatum deepe, & you ſhal be there under the Swan-grounds ſheltred for all winds.

From the ſouth-end of Ebeltud to Aerhuyſen, the courſe is weſt and by ſouth and weſt ſouthweſt five leagues. It is there all ſhoale water of two and tree fathom deep. He that will anchor in the road before Aerhuyſen, let him bring the great ſteeple in the midſt betwixt the two other ſharp ſteeples, there is the beſt ground and good, and good road in tree, four and five fathom, ſo ſhoale as you will. To the ſouthwards of Aerhuyſen goeth in the Wederſound betwixt Judland and Sampſo: he that will ſayle in there, muſt bee well acquainted, for it is there all full off riffes and ſhoals. You may not alſo uſe that fareway by night, by reaſon of all the ſand and ſhoals, and alſo by day you muſt be very carefull and circumſpect in loking out, and not ſpare your lead, but you may anchor and have road there every where. When you will ſayle through the Wederſound, comming of from the great Helme or Ebeltud, you muſt leave the Iſland Tuns and the Swane-grounds on the larboard-ſide, running all alongſt by the Juttiſh coaſt in two or tree fathom, untill paſt Horſens, or the Iſland Endelau, which you may not ſaile to, not come neare from the weſtwards, by reaſon of all the grounds, which lye before it on the weſt-ſide. It is narrow channell betwixt Endelau and the main land, lying from the Wederſound through the Swan-grounds ſouth, it is on both-ſides ſhoale, and but a Creeck for to ſayle through.

When you come of from the Melverſound & will ſayle throug the Wederſound, it is beſt to runne alongſt by the Juttiſh-ſide until thwart of the River of Horſens, then you muſt edge ſomewhat of there from the land, & ſayle right with the Iſland Tons, & ſo you runne throug betwixt the Norther and Souther-ground, leaving the Iſland Tons on the ſtarboard ſide. When you are then paſt Tons, you ſhal

runne

runne out cloſe by the north-point of Sampſo, towards the land of Ebeltud, it is altogether one courſe from Horſens to Tons, and forth to Sampſo, and the point of Ebeltud, to wit, n. e. and ſ. e. 8 or 9 leagues.

elver nd. From Horſens, or that Iſland Endelaw unto the Melverſound, the courſe is ſouth and ſouth and by weſt, 7 or 8 leagues. The Melverſound is a deep ſound of 20 & 25 fatum, very croocked to come into, it goeth in betwixt Fuynen & Jutland, which are both high lands. From the Iſland Ebelo unto Melverſound the courſe is ſ. w. and ſ. w. & by ſouth 5 great leagues.

belo. From the road of Sampſo to Ebelo the courſe is ſouth and by weſt 5 leagues. From the ſound-end of Sampſo to Ebelo the courſe is ſ. w. and by ſouth 4 leagues.

oems. From Sampſo to Roems the courſe is ſ. e. & by ſ. w. and by weſt 8 leagues. The little Iſland Ebelo lyeth of a league from the ſame, rigt before Bouwens, but you cannot ſaile througt betwixt the Iſland & Fuynen. To the ſouthwards of the Iſland lyeth a great rocke under water, betwixt this

oad ore nes. rock and the Iſland is the road before Bouwens in eight & nine fathom.

Betwixt Syro and Wero lyeth a dangerous riffe, long & broad, lying further then halfe way to Syro. When you will runne throug betwixt the two foreſaid Iſlands a weather of Ruſſeneſſe, you muſt leave at leaſt the two third parts of the water on the ſide of Wero, & goe in ſ. ſ. w. towards Roem, with is 9 leagues diſtant.

ers- e. The foreſaid riffe is called Haters riffe, is on the eaſt-ſide very hard and ſtony, hee that commeth from Boltſack, he ſhall run cloſe to the Iſland Wero, for to avoyd that riffe, the channel betwixt the riffe and Wero is not very broad, & 3 fatum, or 3 fatum & a halfe deep. He that commet from Roems or Ruſnes, & will ſaile throug Wero ſound, let him bring the great Helm to the eaſt-ſide of Wero, and keep them ſo ſtanding ſailing on ſo rigt with them, he ſhall (ſo doing) take no hurt of Haters riffe. Betwixt Syro & Haters riffe and ſomewhat more ſouthwardly, the ground is very uneven of 5, 6, 7, 8 & 9 fatum. On the ſouth-ſide of Haters riffe it is good anchoring for northerly winds, in 6 and 7 fathum.

Ruſnes and Spiro lye n. n. e. and ſ. ſ. w. about 5 leagues aſunder.

From the point of Ruſnes runneth off a little riffe to ſeawards, but to the eaſtwards of it betwixt Ruſnes and Haſeleyn, lyeth off a riffe a leaſt 2 leagues into Sea, which lyeth dry at the end, & by it, it is very ſteep, cloſe alongſt by the end, it is 8 fatum deep.

len- gh. From Ruſnes to Spro it is ſ. & by e. 8 or 9 leagues. Betwixt Ruſnes & Spro lyeth Callenburch, which is alſo a lade place, & about 2 leagues to the ſouthwards of Callenburg lyeth a flat alongſt the coaſt about a league from the ſhoare of 5 fatum depth, you muſt alſo avoid the ſouth corner of Callenburg, for there ſhooteth of a riffe halfe a league into Sea, there is alſo to the northwards a long flatt alongſt the ſhoare, but not deep to the Sea-wards, betweene Callenburg & Ruſnes it is good lying for an eaſterly wind.

From the eaſt-end of Spro runnet of little riffe or ledge of rock, & over againſt it commeth alſo a flat ſhooting of from the land, betwixt them both it is 4 & 5 fathum deep. Going on the ſouth-ſide of Spro it is alſo very foule, more then halfe a league without the ſhoare. But behinde or thwart of Spro lyet Caſſeur, a faire Haven, where men doe eur. lye at the Kay, & let their goods be carned into the ſhips, where alſo it is betweene both 14, 15 & 16 fatum deep, but in the middle of the fareway lye ſome banks, where there is no more then 5 & 6 fatum water, good ſtrand ground.

From Spro to Langeland the courſe is ſouth & ſouth and by eaſt 4 leagues diſtant. He that commeth alongſt to the eaſtwards of Wero, throug the channell betwix Wero and Haters riffe, and will ſaile to Roems, let him go on due ſouth and by eaſt, and then he ſhall runne alongſt about an Engliſh mile to the eaſtwards of the Boltſak, & fall with the land a little to the eaſtwards of Roems: likewiſe he that goeth from Roems, or a little to the eaſtwards of it, on north and by weſt hee ſhall foll betwixt Wero and Haters riffe rigt in the fareway. Betwixt Roems and Fuynen you may run throug in two fatum, but with great ſhips you cannot goe throug there.

From the north-end of Fuynen ſhooteth of a little riff about an Engliſh mile into Sea. About a league eaſt & by north from Roems lyeth a ſhoale of 3, 4 & 5 fatum, which is ſteep & ſhoaleth up ſo ſuddenly, that a man, not knowing of it, & finding it ſo by the lead, ſhould be affrigtted at it. To the ſouthwards of Roems, in the land of Fuynen lyeth a little towne, for to lade, called Cartemonde. The Haven goet in from the eaſtwards, & it is ſhoale on the weſt-ſide, there lye no buyes in the Havens mouth, there is no more water then 5, 6, or ſometimes 7 foot. Carte- monde.

From Roems to Spro, the courſe is ſ. e. 5 leagues. Betwixt Spro & Knuytſhead, it is 12 & 13 fatum deep, but betwixt Roems & Spro, it is 10 & 11 fatum deep. Spro.

Even about to the ſouthwards of the poynt of Knuytshead in Buyen, lyeth the Haven of Nyburg, when you are about the poynt, you runne rigt up to the towne, about n. w. a league, there it is 6 and 7 fatum deep. Men doe lye there with ſhips to the Kay, and let their goods bee carried in what they will. Nyburg

From Knuytſhead to Langeland the courſe is ſ. e. 4 leagues, & then you leave Spro lying on the ſtarboard-ſide. From the ſ. w. end of Sproo ſhooteth of a little riffe which you muſt avoid. At the nord-end of Langeland lyeth the ltle Iſlands of the Friſſel, which are round about very foule. From Knuytſhead to the Iſlands Taſſing, the courſe is ſ. & ſ. & by e. 4 leagues, & then leave the Friſſel lying on the larboard-ſide, & run throug betwixt the Friſſel & Fuynen. The Friſſel.

If you be bound to Swineburg, then go from the Friſſel to the ſoutheaſt-end of Fuynen, on ſ. ſ. w. & you ſhall meet a litle Iſland which you may run about on both ſides of it. Throug betwixt Taſſing, and that little Iſland, or may run alongſt by the land of Fuynen, untill that you come to the little Towne of Swineburg, which lyeth over againſt the Iſland of Taſſing. Over againſt the point of Fuynen lyeth a little Iſland called Olms, then you muſt goe up to the weſtwards. You may alſo runne about on the other-ſide of Taſſing, and leave the Iſland Art with the foule grounds (which lye betwixt Art & the ſoutheaſt-end of Fuynen) on the larboard-ſide of you, it is no deeper upon theſe grounds then 6 foor. Now when as that you ſhall come by the little Iſland Olms, or by ſoutheaſt-poynt of Fuynen, then you muſt (as before is ſaid) goe up to the weſtwards about the poynt of Fuynen towards Woburg. Upon the ſouth-ſide of theſe foreſayd grounds goeth alſo a Deepe throug w. & w. and by ſ. throug betwixt the grounds & the Iſland Arr: upon this Iſland Arr lyeth a little Towne called Kopingh. This foule grounds is 3 leagues long, & that Iſland Arr is alſo 3 leagues long, they lye both of them e. & w. & the Munk Iſland lyeth at the end of theſe grounds before Woburg in Fuynen, which hath two riffes, the one ſhooteth off from the ſ. e. & e. into Sea, the other from the north-poynt n. e. into the Sea. When you ſaile throug to the northwards of theſe grounds, to wit, betwixt Fuynen & theſe grounds, towards Woburg, you ſhall alſo meet with the foreſaid Munk, with another little Iſland of two more, leave them lying on the larboard-ſide, and run along by the land of Fuynen, about w. and w. and by nord. Unto the poynt of Asken, which is about 6 leagues diſtant from the ſ. e. poynt. Olms. Koping Asken.

From the eaſt-point of Asken unto the little Iſland Toren, the courſe is w. & by n. & w. n. w. 2 leagues, & to Areu w. ſ. w. 3 leagues, theſe two litle Iſlands lye one over againſt the other, the one on the ſide of Jutland, & the other on the ſide of Fuynen, men runne throug there betwixt 2 riſs, wich run of one againſt the other, it is there 4 & 5 fatum deep. Toreu.

To the n. w. or weſtwards of Areu lyeth the Sound off Hadderſleu, which lyeth in about weſt & by ſouth, upon it lyeth the Towne Hadderſleu 2 leagues within the land. Sound of Hadderſleu.

From Areu of Toreu to Melverſound, the courſe is n. n. weſt 5 leagues, which you muſt run into from the ſouthwards firſt weſtwards unto the Sound of Coldingen, being a broad Sound, which goeth a league into the land, if you will goe throug the Melverſound, you muſt leave on the larboard-ſide, and goe up to the eaſtwards unto the Towne of Melver, where you come then againe into a Crooked channell. The Melverſound goeth out to the northwards with a very crooked channell, & you come out againe upon the broad water to the northwards of Fuynen, as is before ſayd. You may alſo ſayl of from Areu into the Sound of Sound of Coldingen.

Apenrade. Aelſem alongſt ſ. ſ. w. unto Apenrade, and then about behind the Iſland of Aelſem, untull you come into the Sound of Flensburgh.

The Melverſound and the little Iſland Areu lye ſ. ſ. e. and n. n. w. one from the other.

To ſayle out of the Aelſem-Sound from Areu or the Melverſound, then goe from Areu or Toreu unto the Roen e. ſ. e. 3 leagues, and then through betwixt the Iſland and Fuynen, that is alongſt to the northwards of Roen, for you can not goe about to the ſouthwards of it. The Roen is a bad and ſhoaly riffe, ſhoting of from Aelſen, where unto it is faſt, the outer-end of it lyeth dry like Anout Riffe. From the Roen to Arr or Koping, the courſe is eaſt & by ſouth 5 leagues.

The Roen.

From the ſoutheaſt-end of Aelſt ſhoteth off a great Riffe towards Arr called the Poles Riffe, you muſt run betwixt Arr and that Riffe, leaving h two third parts of the water on the Aelſen-ſide, and one third parts towards Arr, and runne on ſo with the ſouth-end of Langeland, untill that you come againſt Copen.

Poles Riffe.

From Arr to the ſouth-end of Langeland, the courſe is e. ſ. e. 4 leagues. And from the Poles Riffe to the ſouth-end of Langeland, the courſe is weſt and weſt & by north 6 leagues. You may through betwixt Langeland and Arr to the northwards, and come out againe into the Belt by Nyburg: from the ſouth-end of Langeland to Taſſing, it is north 6 leagues, you may ſayl about Taſſling on both ſides, and leave Arr and the foule grounds, lying on the one ſide of you. Upon theſe grounds it is but 6 foot deep.

Taſſing

You may alſo ſayle through betwixt the foreſayd grounds and Fuynen into the ſound of Aelſen, unto the little Iſlands of Areu and Toreu, as hath been ſayd here before.

From the little Iſland Areu tot Apenrade, the courſe is ſouth and by weſt 5 leagues. The Sound of Apenrade is a broad open Sound, upon which lyeth the foreſaid Towne of Apenrade.

The Sound of Apenrade.

From the River of Apenrade unto the croked channel of Sonderburg, which goeth in betwixt the Iſland Aelſen and the maine land, the courſe is eaſt 3 leagues, there you may ſayle throug about behinde the Iſland of Aelſem to Sonderburgh, and then forth into the Sound of Flensburgh. It is very narrow and crooked betwixt the Iſland and the mayne land, but when you are come throug the narrow and croked channell into the Sound of Flensburgh, there it is broader and larger.

Sound of Flensburgh.

The Sound of Flensburg goeth in betwixt Sonderburgh and Holſterland, being a broad ſound. He that will ſayle in there, muſt take very good heed of the Holſter ſide, when you behin to come betwixt the two lands, and run in alongſt by the land of Aelſt; for from Nubell or Holſterland lye of the Chalk-grounds halfe wayes the deep. This ſound lyeth in weſt and by ſouth, untill that you come before the River. There lyet in the Rivers mouth a litle Iſland on the ſtarboard ſide, you muſt run into the eaſtwards of it, and goe in weſt and by ſouth & weſt, until you come within the croked channell of the River or Sound, and then you muſt goe up againe ſ. w. then you ſhal ſee the towne of Flensburg lye before you.

Chalck ground.

To the ſoutwards of the Sound of Flensburgh lye yet three Sound of Rivers, where great ſhips may goe into, to witt, the Sley, Nylhofvoert and the Sound of Kiel, the land lyeth of from Flensburg to Kiel ſ. ſ. e. or ſomewhat more eaſterly ſix leagues.

The Sley.

From Sonderburgh to the Sley, the courſe is ſ. e. and by eaſt 4 leagues, that is a broad deepe Sound, lyingh in firſt about weſt and when you are within it, then it runneth in about ſ. w. and by weſt paſt Sleeswyke, there alſo come ou may great ſhips. The Town Gottorde lyeth alſo upon this River.

Nylhof voert. Kiel.

Betwixt the Slye and Kiel lyeth Nylhofvoert upon it lyeth a little Towne, called Eeckelenfoort.

The Sound of Kiel is a broad Sound, which lyeth in about ſouth weſt, there you may goe in alſo with great ſhips. From Kiel to the weſt-end of Femeren, it is eaſt & by north about 8 leagues.

Femeren.

From the Poles-Riff to Femeren (over the Coelberger-Heyd) the courſe is e. ſ. e. 13 or 14 leagues, but from the ſouth-end of Langeland unto Femeren it is ſ. e. and by eaſt 8 leagues. The channell betwixt Femeren and Laland it is 5 and 6 fatum deepe, you may ſayle round about Femeren, there it is all ſhoale ground. Betwixt Femeren and Holſterland you may run throug in 8 or 10 foot, there lyeth a little Town, called Heyliger-haven, where you may anchor with ſhips of ſmall draughts for to lade Wheat or Barley. From the Iſland Femeren to Geſter-Rif, the courſe is eaſt and by north 10 leagues. But from Femeren to the Trave of Lubek, ſ. ſ. w. 10 leagues, there goeth in a good deep for great ſhips, it is deep upon the banck 12 foot water.

There is alſo a great bay and a good Haven, when men may lye ſafe for all winds, except the n. e. and n. n. e. winds. From the Trave of Lubeck to Geſter-rif, the courſe is n. e. and ſ. w. about 19 leagues.

From the Trave of Lubeck to Wiſmer-deep, the courſe is firſt n. e. and by eaſt, and then e. n. e. there goeth in a fayre deep for all ſorts of ſhips.

For to ſayle in at the deep of Wiſmer, bring the ſteeple upon the South-land ſouth from you, and ſayle ſo in untill that the ſteeple ſtanding upon the eaſt-land, by that eaſter-moſt-houſe, commeth to the 5 or 6 houſes, by theſe houſes ſtand ſome threes together. From that eaſt-land runneth of a little Riffe, lying of n. w. and by north from it, when the ſteeple commeth to theſe Houſes, then goe in ſ. ſ. e. in that deepe is 12 foot water. In the Summer there lye two buyes in the havens mouth, the one upon the tayle of the ſand that ſhoteth off from the eaſt-land and the other upon the ſhoale ground, you muſt run in betwixt them. This deep of Wiſmer lyeth from Femeren ſ. ſ. e. diſtant about 7 or 8 leagues, but from Wiſmer to Geſter-riffe, the courſe is northeaſt 12 or 13 leagues.

About ſouth from Geſter-Riffe lyeth Roſtik, there goeth in alſo a good deepe of 10 foot, it is there very flat, you may ſound it on both ſides with the ſounding-pole. Wiſmer and Roſtick lye about 8 leagues aſunder.

Somewhat to the eaſtwards of Roſtick lyeth a high land called Robbeneſſe, from it ſhoteth of a great Riffe or ſhoale to ſeawards, towards Geſter-Riffe, it is betwixt Geſter-Riffe and that ſhoale not deeper then 12 or 13 fathom. If you come neareſt to Geſter-Rif, then it doth ſhoale up ſuddenly but if you come nearer this ſhoale, then it ſhoaleth by little. Geſter-Riffe (as hath been beforeſayd) is a ſhoale Riffe, and runneth of at leaſt 3 leagues into Sea.

A little to the eaſtwards of this foreſaid ſhoale lyet Barts, there goeth in a deepe of 6 foot, at the weſt-poynt goeth of a Riffe, which men muſt avoyd.

The Iſland Langeland is about 8 leagues long, and lyeth ſouth and north, to the eaſtwards over againſt it lyeth the Golverſound, lyingh into the northwards of Laland, all alongſt up unto Neſtvelt and Wordenburgh, and commeth into the Greenſound, and in the Wolve-gat, and again into the Eaſt-Sea. Before the Golverſound lye three litle Iſlands the one at the poynt of Laland, which is called Wedero, and is alſo faſt to it with a Riff, ſo that men cannot ſayl throug there betwixt them; to the northwards of it men doe runne into the Golverſound, leaving that Iſland on the ſtarboard ſide. The other two lye to the northward of the foreſayd Iſland of Wedero, the one is called Arnis, and the other Ooms. Ooms is a little playne Iſland, but Arnis is the greateſt, which lyeth neareſt to Zealand, and is full of trees. From the Iſland Ooms lyeth of a Riffe ſ. w. to Seawards, which is a great league long, and upon the end flat, which men may runne over by the lead. When you will ſayl into the Golverſound, you muſt leave theſe two Iſlands, lying on the larboard ſide. The Iſland Laland hath upon the weſt-poynt over againſt the ſouthend of Langeland a Riffe or Hode, lying off from Laland at leaſt half wayes over the Belt: For to avoyd that, you muſt runne alongſt within an Engliſh mile to the eaſtwards Langeland; or when that you leave the two third parts of the water on Lalands ſide, and the other third part on the ſide of Langeland, you ſhall not come to neare it. When you come from the ſoutwards and are bound into the Belt, and that then the ſteeple of Maſcon, which ſtandeth upon Laland, commeth to ſtand n. e. and by eaſt from you, then you are paſt that Riffe, and lyeth to the ſouthwards of you: It is here in this Channell betwixt Laland and the ſouth-end of Langeland 5, 6 and 7 fathom deep.

From

From the ſouth-end of Langeland to Femeren the courſe is ſ. e. and ſ. e. and by eaſt diſtant 8 leagues.

When as you come of from Langeland and are paſt the riffe or Hooke of Laland, then the ſouth Coaſt of Laland lyeth eaſt and weſt: alongſt by it lyeth a ſand, which is called the Red-ſand, and lyeth alongſt untill before Golverſound which runneth in betwixt Laland and Geſter.

To the northwards of this ſand is a roade of 14, 16 and 18 foot water, before the little townes of Aelholm & Roobuy, where men do lade Nuts and Barley.

Betwixt Laland and Geſter, thwart of this Red-ſand (as hath been ſayd) runneth in the Golverſound, which men may run into, and come out againe into the Belt, but in this ſound or channell there is little depth, there lyeth a ſtone banck within thwart over the channell. The little town Nicopen lyeth upon the Iſland Falſter a league within Geeſter. From Geeſter ſhooteth of Geſter-riffe, at leaſt thre leagues into Sea, which is a ſhoale riffe.

To the eaſtwards of Geſter rif lyet an Iſland called Bout, it is there abouts all ſhoale water; to witt, 3 & 4 fatum.

To the eaſtwards of Bout goeth in the Greenſound, by the little towne Stuybekuype, and commeth out again into the Belt to the nortwards of Laland: the Green-ſound lyet in about weſt and weſt & by north in thre fatum, there lyeth a ſhoale on the larboard-ſide of the mouth of the Sound, called the Tolck, which men muſt avoid: you muſt goe into the eaſtwards of it, you may lead it in alongſt by the land of Meun, in 14 or 15 foot, that foreſaid town Stuybekuype lyeth about a league within the mouth of the channell.

From Geſter riff to Meun, the courſe is n. n. e. 7 leagues: but from Bout to Meun it is n. e. about 6 leagues.

From the Gelverſound to Meun, the land lyeth in a bay you may anchor therefor a n. e. n. n. w. & weſt winde, in 5 and 6 fathom.

He that commeth out of the Sound, and is bound to the ſouthwards of Meun, may come ſo near Meun as he will, and luffe up to the weſtwards by the point, & anchor where he pleaſe, in 5 or 6 fathom. On the north-ſide of Meun you may alſo anchor in 6 fathom, behinde a little riffe that ſhoteth of from the north-poynt, for an e. ſ. ſ. w. and weſt wind, it is there all over flat, and good ground.

Of the Depths about theſe Places, and in what Depths men may ſee the Land.

In the Ripe, Eyder and Hever, a ſouth & north Mone maketh the higeſt water, the floud commeth there out of the n. w. and the Ebbe out of the ſ. e. and ſo run over the north grounds.

In the deep of Liſt or Silt, a ſouth and north Moone maketh the higheſt water, the floud commeth there out of n. w. and falleth very little alonghſt the land, and the ebb to the contrary.

In Knuytsdeep, a ſ. ſ. w. and n. n. e. Moone maketh the higheſt water. The floud commeth there alſo out of then northweſt and falleth but a great quarter tyde alongſt the land, and the ebbe to the contrary.

In the Haven of Zuyder-zyt, the Growe-deepe, the Schellingkroegh a ſ. w. and by n. n. e. Moone maketh the higheſt water, the floud commeth there alſo out of the n. w. & falleth over the Reefshorne towards the Juttiſh Iſland, & the ebbe againe to the contrary, of from the land in the nord Sea.

Of the Grounds and Depths.

The grounds of the Hever and the banckes of the Small-deep without ſtrand & Eyderſtee, lye at leaſt 2 leagues without the coaſt of the land.

Betwixt Holyland and Ameren or ſtand it is 10 or 11 fathom deep, in that depth you may ſee both the lands, if you climbe up in the ſhroudes.

Strand is to bee knowne by te ſteeple of Pielworme, ſtanding upon the ſoud-end of the land: Upon the Iſland ſtrand ſtand more Churches and ſteeples, but none ſo eaſy to be knowne as Pielworme.

Ameren is a league and a halfe long, and hath all alongſt low ſandhills crowne with ſpiry groſſe.

The Iſland Silt you may ſee in 10 fathom: Upon this Iſland (neareſt to the north-end) lyeth a hig ſteepe red cliffe, on both ſides going ſloping down; upon the ſouth-ſide of the cliffe ſtandet a flat Church, which a low ſteeple, and to the eaſtwards of it another Church, with a hig thik ſteeple called Leydom. The nord-end of Iſland is called Liſt, & the ſoud end Voortrap.

Courſes and Diſtances.

From the Eyder to Hever the land lyeth n. n. w. and ſ. ſ. e. 5 leagues
From the Hever, or the ſouth-end of ſtrand to the ſouth-end of Ameren n. n. w. about 5 leagues
Two leagues north from Ameren lyeth Silt, which is about 5 leagues long, and lyeth ſouth and by eaſt, & north and by weſt.
From the nord-end of Silt, called Liſt, unto the ſoud-end of Rim or Rem, it is n. e. & ſ. w. 1 great leag. Rem is 3 leagues long, & lyet moſt ſoud & nord.
From the north-end of Rem, to the ſouth-end of Manu, it is n. e. & ſouthwards a league and a halfe, you can hardly get ſight of it by reaſon of the grounds, & great ſhoals, which lye thwart of it Seawards.
Manu and Phanu lye about 2 leagues one from the other, Manu is almoſt a leagues long, and Phanu about four leagues long, and lyeth from Phanu Knuyters to Knuters deepe, ſ. ſ. e. and n. n. w. This Iſland hath alſo a faire ſtrand, but the north end towards Grouwe-deep is very flat.
From Phanu to Doodenberge it is about four leagues, betwixt them lye the Havens of the Growedeepe and Schellingkroeg.
From Holyland to the Eyder eaſt and by n. and w. and by ſouth 7 leagues
From Holyland to the outermoſt buy in the Hever, n. e. and ſ. w. 8 leagues
You may lye by the outermoſt buye in the Hever, and ſee Holyland with cleare ſight.
From Holyland to Ameren or ſmall-deep, n. n. e. ſomewhat eaſterly, and ſ. ſ. w. ſomewhat weſterly 10 leagues
From Holyland to the deepe of Silt or Liſt, north and by eaſt 17 leagues
From Holyland to Knuyts-deep or Ryper-deep, north and north and by eaſt 23 leagues
From Holyland to the Horne or the Doodenberg nord & ſouth 30 leagues
From Knuyts-deep or the Iſland Phanu to the Flye, ſ. w. & by n. 50 leagues
From the Iſland Silt to the Fly n. e. and ſ. w. 46 leagues
From the Doodenberg or the Horne, to the Haven or Numen or Rinkopper-deepe, north and by weſt 7 leagues
From the Rinkopper-deep, or the Haven of Numen to Boevenbergen north and by weſt about 10 leagues
From the Doodenbergh to Boevenbergen, the land of Jutland lyeth north and by weſt, and ſouth and by eaſt 17 or 18 leagues
From Boevenbergen to the Holmes n. n. e. 9 leagues
From the Holmes to Robsnot or Robbeknuyt n. e. 9 or 10 leagues
From Robsnot to Harthals n. e. and by eaſt 4 leagues
From Hartshals to the Scawe or Schagen e. n. e. 8 leagues
From Rinkopper or Numer-deep to the Fly ſ. ſ. w. or a little more weſterly about 58 leagues
From Boevenbergen alongſt Jutland, without the grounds unto the Elve or the outermoſt buy ſouth and by eaſt about 48 leagues
From Boevenbergen to Holyland, ſouth and by eaſt ſomewhat ſoutherly about 43 leagues
From Boevenbergen to the Flye or Borne-riffe ſ. ſ. w. about 67 leagues
From Boevenbergen to the Northforland, ſ. w. & by ſ. 118 or 120 leagues
From Boevenbergen to the Holmes before Yarmouth ſ. w. 93 leagues
From Boevenbergen to Flambroughead w. ſ. w. ſomewhat ſouterly 98 lea.
From Boevenberge to Scharbroug w. ſ. w. ſomewhat ſoutherly 100 leagues
From Boevenbergen to the River of New-caſtle or Tynemouth weſt & by ſouth about 106 leagues
From Boevenbergen to Boeckenes weſt & by north about 106 leagues
From Boevenbergen to the Naze n. w. & by north 24 leagues
From the Riffe in 16 fathom to the Fly ſouth and by weſt 65 leagues
From the Riffe in 18 fathom to the Strait betwixt Callice & Dover ſ. ſ. w. about 120 leagues
From the Holmes to the Naze n. w. about 19 or 20 leagues
From the Holmes to Fleckery n. w. and by north 19 leagues
From the Holmes to Mardouw north 27 leagues
From the Holmes to Longſound north & by eaſt 35 or 36 leagues
From the Holmes to Ferderoer n. n. e. 40 leagues
From the Scawe to Tynemouth w. ſ. w. 130 leagues
From the Scaw to the Naze weſt 33 leagues
From the Scaw to Fleckery weſt and by north 25 leagues
From the Scaw to Reperwick weſt and by north and n. n. w. 24 leagues
From the Scawe to Maerdowe n. w. and by weſt 20 or 21 leagues
From the Scawe to the Longſound n. w. and by north or little more northerly 22 or 23 leagues
From the Scawe to Ferderoer north and by weſt 23 leagues
From the Scawe to Otturen n. and by e. ſomewhat eaſterly 42 leagues
From the Scawe to Maelſtrand e. n. e. 13 leagues
From the Scawe to Nidinck eaſt and by ſouth 15 or 16 leagues
From the Scawe to Waersbergen e. ſ. e. 19 or 20 leagues
From the Scawe to the Trendels ſ. e. 8 leagues
From the Scaw, about a Sea-board, the Trendels ſ. e. and by eaſt 8 leagues
From the Scaw to Leſou. ſ. ſ. e. 8 leagues
From Scaw to the ſmall Helmes ſouth 4 leagues
From the Scaw to Sea-buy ſouth and by weſt 5 leagues
From the Helmes to Sea-buy 2 leagues
From Sea-buy to Aelburger-deep ſouth and by weſt 9 leagues
From Aelburger-deep to Mariacker ſ. and ſ. and by w. 4 leagues
From Aelburger-deep to Stevens-head ſ. e. and by ſouth 9 leagues
From Aelburger-deep to Haeslin ſ. e. and by eaſt 20 leagues
From Stevenshead to Haeslin e. ſ. e. 13 leagues
From Stevenshead to great Helme ſ. and by w. about 6 leagues
From Stevenshead to the point of Ebeltud ſ. ſ. w. 7 or 8 leagues
From Stevenshead to Syro ſ. ſ. e. and ſ. e. and by ſouth 9 leagues
From the great Helme to Wero ſ. e. 4 leagues
From the great Helme to Samſo ſouth 4 leagues
From the ſoud-end of Ebeltud to Aerhuyſen w. & by ſ. & w. ſ. w. 5 leagues
From the road of Samſo to Ebelo ſouth and by weſt 5 leagues
From the ſouth-end of Samſo the Iſland Ebelo, ſ. w. & by ſ. 4 leagues
The Northweſt-coaſt of Fuynen ſ. w. and by weſt 8 leagues
From Endelaw to Melverſound ſouth and by weſt 6 leagues
From Ebelo to Melverſound ſ. ſ. w. ſomewhat ſoutherly 5 leagues
From Samſo to Roems ſ. e. and by ſouth 6 leagues
From Syro to Rosnes ſ. ſ. w. 5 leagues
From by weſt Syro to Roems ſ. ſ. w. and ſouth and by weſt 9 leagues
From Wero to Bultſack ſouth and by weſt 4 great leagues
From Wero to Romps ſouth and by eaſt 8 leagues
From Romps to Knuytshead ſouth and by eaſt and ſ. ſ. e. 5 leagues
From Knuytshead to Langeſand ſ. e. 4 leagues
From Knuytshead to the Iſland Taſſing ſouth and by eaſt 4 leagues
From the ſ. e. end of Fuynen the eaſt point of Asken, w. & w. & by n. 6 lea.
From the point of Askens to the litle Iſland of Toren, weſt northweſt and weſt by north 6 leagues
From Areu to Melverſound n. n. w. 5 leagues
From the point of Rusnes in Zealand, to the Iſland Fyro, n. n. e. and ſ. ſ. w. 5 leagues

From Ruſnes to Caſſeur ſ. ſ. e. 9 or 10 leagues
From Spiro to Langeland ſouth and ſouth and by eaſt 4 leagues
From the north-end of Langeland to the ſouth-end, ſouth 8 leagues
From the ſouth-end of Langeland, to the Iſland Arr, the courſe is w. n. w. 4 leagues

From the Iſland Arr or Koping, to the Roen, w. and n. 5 leagues
From the Roen, to the little Iſland Areu, w. n. w. 3 leagues
From Areu to Apenrade, ſouth and by weſt 5 leagues
From the River of Apenrade to the Strait of Sonderburge 3 leagues
From Sonderburgh to the Sley, ſ. e. and by eaſt 4 leagues
From the ſouth-end of Langeland to Femeren, ſ. e. and by eaſt 8 leagues
From the Pools-riffe, lying on the Iſland Aelſt to Femeren, the courſe is e. ſ. e. 13 or 14 leagues

From the Slye to the Kiel ſ. e. 4 leagues

From Kiel to Femeren, the courſe is eaſt & by north 8 leagues
From Femeren to the Trawe of Lubeck ſ. ſ. w. 9 or 10 leagues
From the Trawe of Lubeck to Wiſmer-deepe, the cours is firſt n. e. and by n. and then e. n. e. in all 9 leagues
From Roſtick to Robbenes, the courſe is n. e. 4 leagues
From Robbeneſſe to Doornboſch n. e. and by eaſt 7 leagues
From Femeren to Wiſmer-deep, ſ. ſ. e. 7 leagues
From Femeren to Roſtick, e. ſ. e. 8 or 9 leagues
From Femeren to Geſter-riffe, eaſt & by north 9 or 10 leagues
From the Trave of Lubeck to Geſter-riffe n. e. 19 leagues
From Wiſmer-deep to Geſter-riffe n. n. e. 12 or 13 leagues
From Roſtick to Geſter-riffe, the courſe is north 7 or 8 leagues
From Geſter-riffe to Doornboſch, the courſe is eaſt 9 leagues
From Geſter to Meun n. e. 7 leagues

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Land of Eyderſtee to the northwardes of the Eyder.



Thus ſheweth the Iſland Ameren.



Thus ſheweth it ſelfe the Iſland Silt, when you ſayle alongſt by it.



Thus ſheweth the Land Zuyder-zyt to the ſouthwards of the Doodenbergh.



Thus ſheweth the Land betwixt the Horne or Doodenbergh and the Haven of Numen.



Thus ſheweth the land betwixt Boevenbergen and the Holmes, when you ſayle alongſt by it, 3 leagues from the land.



Thus riſeth the Land betwixt the Holmes and the Scaw, when you ſayle alongſt by it.



Thus ſheweth the Land and the Church of Aelſt, when you are 2 leagues and an half by eaſt Aelburger-deep.



When you ſayle to Lubeck, alongſt betwixt the land of Cruys-oort and Holſter-land, then it ſheweth it ſelfe on both ſides thus.



Thus ſheweth the Coaſt of Meeckelenburgh, betwixt Cruys-oort and Doorne-boſh, or the Jelle, when you ſayle alongſt by it, a league without the land.

The fourth Demonſtration,

Where in are Deſcribed

The Schager-Rack, alſo the Sound from the Paternoſters-Kol,

And ſo forth throug the Sound to Falſterbon.

Paternoſters.

THE Paternoſters are a great rane of Rockes, which lye farre off to Seawards from the coaſt, behinde them, to witt, on the ſouth-ſide, goeth in within the land a broad Sound, upon the ſoud-ſide of it lyeth a great hig round Rock or hil, called Britto. To the ſoudwards of that ſound lyeth the Iſland of Maelſtrand. He that commeth from the Scaw, and deſired to ſayl to Maelſtrand, let him go on eaſt northe then he ſhall get ſigt of the foreſayd hill Britto, whi ſhall ſet e. n. e. from him, and ſayle ſo in rigt with it, that he commeth by the Paternoſters, he muſt leave o larboard ſide, and ſayl alongſt by them e. n. e. and ea by north, and then he ſhall runne in ſigt of the Iſland ſtrand, upon which ſtandeth a great ſtony Beacon or

SWEDEN

HAS

SAND

Gottenborg

Bahus

Kongel

Elsborg

Waersberven

Valckenborg

Consback

Reesont

Calfsont

Maester lant

Pater noster

Schagen

Schager-rif

Grasholm

Cleyne holmen

Holms

Dee

Irendel

Lesou

Suseteringh

Hagerhuy

Zuyder gat

Lucton

Hals

Aelborger diep

Martehuis

Robbenhuys

Werhum

Ketting

Oosterhoeck

Orum

Holmen

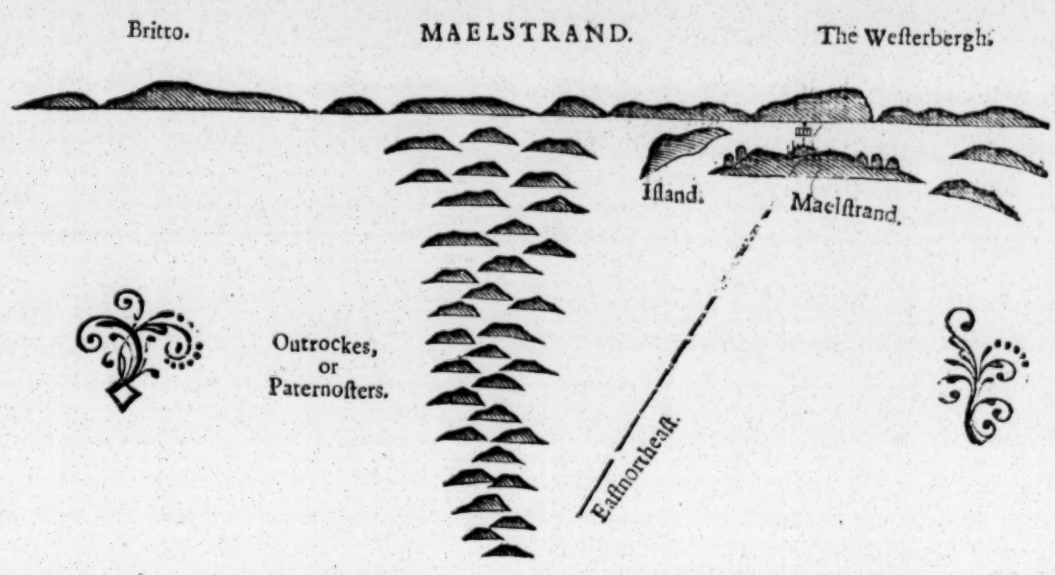
Nidingh

S C H O O N E N.

Engelholm
Laholm
Katterop
Bolsnat
Swedero
Landskroon
Ran
Elsenberg
Ween
Noord
Hilleseur
Kronenborg
Het bosch
Coppenhaven
Draker
Southolm
Noort vliet
Zuytvliet
Mabauven
Walsterbon
Luys gronden
Catryn
Halelin
Roskild floet
Isen floet
Nicopen
Roernyck
Zeelands rif
Steven shooft
Kalck grond
Grimsond
Grimste
Oromby
Groote helms
Bangsond
Haesmed
Endelaud
Randersen
Marsacker
Holms
Haters rif
Syro
Wero
Kyholm
Samps
Samsø
Rosnes
Ramps
Fuynenshooft
Knuyshooft
de Firssel
Landogart
Clartenmunde
Nyborgh
Ossorp
Ebbelo
Bovens
Odensee
Endelau
Karsgard
Callenborgh
Rodens
Kal
Aerthusen
Aerhus
S E A
F L A N D
F V Y
N E N
L A N D

Duytsche mylen 15 in een graed
Spaensche mylen 17½ in een graed
Eng. en Fra. mylen 20 in een graed

7



lock, where ſometimes ſtandeth a maſt with a barrel upon it, and ſometimes alſo there ſtandeth none. You may run in on both ſides the Iſland, either about to the notth-wards or to the ſouthwards of it, accordingh as ſhal be beſt ſitting for the wind: If the winde be at weſt or ſ.w. then you may beſt run in a the norther channell, or if the winde be at ſouth or ſ. e. then it is beſt to runne at the ſouther channell. The norther channell lyeth in by the ſouth-ſide moſt eaſt and by ſouth and e. ſ. e. but the ſouther channell eaſt and eaſt and by north. When you come within the Iſland, you may ſaile about by it, untill you come before the Towne, which you ſhall ſee then lying before you. Men doe anchor there with an anchor to Seawards out a head, and make faſt a cable out a ſtearne on the Kaye, lying ſo with the ſtearn to the ſhoare.

About the middeſt, going in at the ſouther channell, lyeth a rock a bove water, which you may ſail about on both ſides but within that rock lyeth a ſuncken rock under water, and to the ſouthwards of it alſo a great rock, but a little further out then the other. There lyeth alſo a ſuncken rock under water by the Iſland on the north-ſide of the foreſayd rock, which lyeth a bove water, which men muſt be very carefull to take heed of. There is every where good anchor ground. From thence you may ſayl throug within the rocks to Calf-ſound, Bahouſe and Nilus.

Calf-ſound. Calf-ſound lyet diſtand from Maelſtrand about 4 leagues. For to ſayl in there out of the Sea, you muſt run alongſt to the ſouthwards of a great rock, where upon ſtandeth a Warder. On the ſouth-ſide of the Havens-mouth there are great rocks, but on the north-ſide all ſmall rocks. When you come Within the rocks about the poynt of the North-land, there you may anchor in 15 of 16 fathom, there is good Anchor ground. From Calf-ſound you may run up to the ſouthwards, through within the Rocks unto the River of Nilus.

Four leagues ſ.ſ. e. from Calf-ſound, lyeth the Iſland Winneu, to the ſouthwards of it goeth in the Channell of Nilus or Gottenbergh, which is a large and broad ſound, lying in n. n. e. in 8, 9 and 10 fathom, you muſt leave Winneu on the larboard-ſide, and runne in betwixt the poynt of the main land, called Kalderhead, and the Iſland little Denmarck, and then in alongſt by the main land on the ſouth-ſide untill paſt Elsburg to Gottenburgh, it is there alle cleane and cleare without any danger that might hurt you. Gotten burgh.

You may alſo ſayle into the northwards of Winneu, then you muſt leave Winneu, and alſo ſome long rocks on the ſtarboard-ſide, and the throug Iſland, or little Denmarck, on the larboard-ſide, and then in alongſt by the poynt of the mayn land, on the ſouth-ſide, as beforeſaid.

Three leagues ſ.ſ. e. from Winneu lye Mael-ſound and Consback: Male-ſound is a roug Iſland, which you may ſayle round about in 7 or 8 fathom, under it is alſo goo road. Two Cables length w. n. w. from Male-ſound, lyeth a ſuncken rock under water, and alſo one even with the water, a bow ſhot from the land, where upon ſtandeth a Warder.

Conſ-back. Eaſt northeaſt from Maleſound lyeth the haven of Consback, there ſtand two great Warders, each upon a rock cloſe to the land, betwixt them lyeth in the haven, it is a fayre haven, 10 fathom deep, and good anchor ground, when you come about the low point you ſhall ſee Consback, there ſtand two great Wardes, each upon a rok cloſe to the land, betwixt them lyeth in the haven, it is a fuyre haven, 10 fathom deep, and good anchor ground, when you come about the low point you ſhall ſee Consback lye to the northwards of you.

From Maleſound ſ.ſ. w. and ſ. w. and by weſt, a great league to Seawards, lyeth the fowle and dangereus rock Nyng or Nyding: The land upon Nyng is about a halfe league long. The riffe on the north-end runnes till about a league on the land n. e. & is a halfe league broad, wholy rif, with ſharpe ſtones. Upon ſome places 8, 7, 5 & 4 foot water. The taile, which ſhootet ſoutherly downe, is narrow, and runnet from the land n. e. about 2 leagues: There upon is 5, 4 and 3 foot water. A league and a half without Nynger-Riffe, n. w. men may ſtay upon 6 and 7 fathom. You may ſaile throug, betwixt Nyding and Maleſound, or the main land, but it is there all ſhoalow water. Upon Nyding is a fire-beacon, where upon they make fire every nigt. Nyding

From Nyding to Watersbergen the courſe is ſoutheaſt



Monſter ſound. 5 leagues, betwixt them (three leagues to the ſouthwards of Maleſound) lyeth Monſterſound, that is a river or ſound which runneth up into the land, upon it ly ſome Towns as Vlymenes, Horn and Goſewater. From Monſterſound 3 leagues to the ſouthwardes, lyeth Watersbergen. For to ſayl in there, you muſt run in by the eaſt-end. At the point Waters bergen.

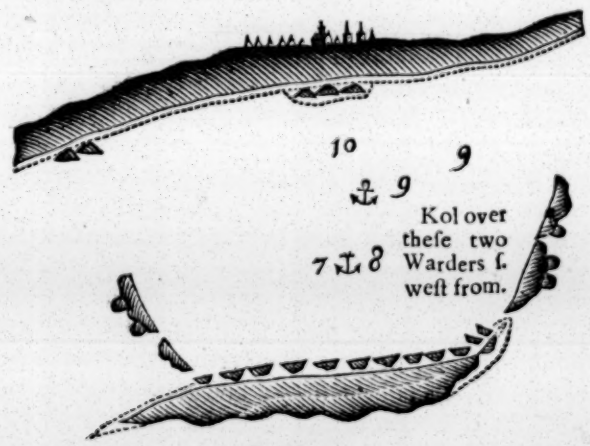
of the Iſland, which lyeth on the northweſt-ſide, before the Haven lyeth a rock under water, & from the poynt where the caſtle ſtandeth upon, lyeth alſo a ſuncken rock, both which you muſt avoyd,& therefore run in admidſt the channell,betwixt the foreſaid Iſland and the mayne land, where the caſtle ſtandeth upon the poynt, and anchor when you come within the poynt right againſt the caſtle in 4 or 5 fat. For to ſayle into Waters-bergen by markes,you muſt bring Old Boey to the north-ſide of the caſte, and goe on n.n.e. there lyeth a Rock even with the water, which you muſt leave on the ſtarboard-ſide, and anchor right againſt the caſtle in 4 or 5 fathom, as before is ſayd.

Valkenburgh. Three leagues to the ſouthwards of Watersbergen lyeth the River of Valckenburgh. On the north-ſide of the Rivers mouth lyeth an Iſland,called Murupting,and 3 leagues to the ſouthwards of it,lyeth an Iſland,called Tullo,betwixt that Iſland and Valckenburgh, within the land,lyeth a high hill,called Haver,being white to ſee to, as if it where ſandy land: Sea faringhmen doe name it Yong Coll, becauſe of the likeneſſe of height and faſhion, which it hath like Col, and ſometimes it is maſtaken for Coll.

Tullo.

Helmſtee. Three leagues eaſtwards from Tullo lyeth Helmſtee upon a River, but there can goe in no ſhipps, but onely Huyes and Boates.

This River of Helmſtee lyet within a great inlet about ſ. ſ. w. 4 leagues from Swedereur.



Swedereur.

Two leagues ſouthwards from Helmſtee lyeth the little Towne or little Caſtle, called Laholm, there goeth alſo a little River into the land. A league weſtwards from Laholme lyeth Doſtadt, theſe Places lye in great Bay.

Swedereur.

THree leagues to the weſtwards of Boſtat lye the Iſland Swedereur,you may run in behind it at bot ſides for to anchor from the northwards, it is there large & broad for to go in.But from the northend of Swedereur ſhotet off a litle ledge of roks,you muſt run alongſt to the northwards of the roks, that lye at the nordend of Swedereur, leaving them on the ſtarboard-ſide & anchor behinde the Iſland,betwixt the great & litle roks in 7 fatum, thwart of the litle white church of Turcko,ſo that the great rock with the two Wardes at the ſoutend be ſ. w. from you, & Col ſtand over the foreſaid rock, there it is beſt lying,& there you are landlockt for all winds. If you wil run out again to the ſoutwards of it, then leave the two Rocks with the Warders on the ſtarboard-ſide, and run boldy cloſe about by them,towards Coll.

Laholm

He that commet of from Anout,& by reaſon of ſoutherly winds cannot run a weather Coll,let him goe from Col n.e. & by north towards Swedereur, and run cloſe about by the two foreſaid rocks with the Warders,at the ſoutend of Swedereur,until he come behind the Iſland & anchor,as beforeſaid,there it is ſoft grount. A nord wint blowet there open in.

Coll. From Swedereur to Coll, the courſe is ſ.w. and by ſouth betwixt both lyeth a great baye,upon which lyeth that little Towne Engel-holme, where men alſo may ride.

For to ſayle from the Scaw to Coll.

FROM the Riſſe of the Scawe to the Iſland Leſou,the courſe is ſ. ſ. e. but the poynt of the Riffe and the Trindel lye due ſ. e. and n. w. 8 leagues aſunder.

The Iſland Leſou is compaſſed round about with foule Dwaelgrounds, Riffs and Sands, that lye off. From the ſoutheaſtend, where the Church ſtands upon,lyeth off ſuch a great riffe or ſhoale from the ſhoare, that about 3 leagues from the land to the ſouthwardes of it, is not deeper then 2 fathom, there under it you may make roade for a ſ. ſ. eaſt winde. Likewiſe from the ſouthweſt-poynt, lyeth off ſuch a great ſhoale, that when the foreſayd flatt Church is eaſt, and e. n. e. from you, you cannot come neare the land within 3 leagues. But the north-end you may come ſo near that you may have roade under it for a ſoutherly and ſ. e. winde, in 3, 4, 5 and 7 fathom, the Church beingh about ſouth from you. Leſou

From the northeaſt-end lyeth off alſo a Riffe right towards the Trindel, which you may ſound about,which you ſayle through betwixt Leſou and the Trindel, which is the nearer Leſou the ſhoaler, and the near the Trindel on the inner-ſide or weſt-ſide, it is deep 5 and 6 fathom. Riffe of Leſou.

The Trindel is a ſtony Sand-plate, three corned,and ſomewhat long of faſhion, it is no more then 4 foot deep and about two Akers of land great, and lyeth moſt alongſt the farewaye, lying from the northeaſt-end of Leſou n. e. or a little more eaſterly about 3 leagues diſtand. On the north-eaſt-ſide of the Trindel lyeth alwayes a great buy,where by you may known it a farre off. Trindel

When the poynt of the Scaw is n. w. and by weſt about a league from you, there it is 17 and 18 fathom deep, but when the poynt lyeth weſt and weſt & by ſouth from you, about a league, there it is 34 or 35 fathom deep.

But he that commeth ſaylingh about the Scaw,& runnet without the riffe in 10, 11 or 12 fathom, & goeth on from thence ſ. e. or ſ. ſ. e. keepth along while ſtill the depth 15 and 16 fathom, at leaſt the ſpace of 3 leagues, before he get 20 or 25 fathom When as that you beginne to get againe ſhoaler water of 10, 8, 7 and 6 fathom, that goeth then through within the Trindel. When as you ſhal meete with the foreſayd depth or the ſhoaling,and ſayle yet further on ſ. ſ. e. then you muſt be very carefull to uſe your lead often, becauſe of the foreſayd ſhoale, which lyeth off from the northeaſt-end of Leſou towards the Trindel, you may run over it (as is ſayd) in 5, 4, and ſo well (in the narrowe) in 3 fathom. When the northeaſt-poynt of Leſou beginneth to come ſ. ſ. w. from you, then you come on againſt the riff or ſhoale, but when the poynt is ſouhweſt from you, then you are over the ſhoaleſt of the riffe. When the weſt-end of Leſou is ſouthweſt, and the Church ſouth weſt and by ſouth from you, then you are about thwart of the buye of the Trindel. Depth about the Scaw.

Four leagues ſouth and by weſt from the Scaw lye the ſmall Helmes, not far from the ſhoare,there are three little Iſlands,the ſouthermoſt the Jutters doe call the Duynen or the Dee, the midlemoſt Holmes & the northermoſt Grasholme, by them lyeth yet another little Iſland. You may ſayle throug between the ſouthermoſt and the middlemoſt, but then you muſt runne neareſt the ſouthermoſt, through betwixt them is four fathom water. The Helmes

Under the Helmes is good road for ſoutheaſt, ſ. ſ. e. and ſoutherley windes. He that will go to anchor under them, commingh from the Scawe, muſt runne to the ſtrand in three fathom, and runne ſo alongſt by it, in betweene the ſtrand and the Helmes, untill that he be within the Rockes, there he may anchor, he may alſo well runne through alongſt by the foot ſtrand in three fathom. When the Rockes of the Helms are eaſt, and eaſt and by north from you, there is the road in four fathom and four fathom and a halfe. The beſt road for to ly under the Helms with ſmall ſhips, is betwixt the ſouthermoſt and middle moſt little Iſland, ſomewhat nearer the main land then the Iſlands: but for great ſhips it is beſt to lye by the Grasholme.

He that will not lye ſo far within the Helmes, may alſo anchor farther out under the high land of Laeklou, ſo that the Helms be ſoutheaſt from him, in 4, 5 or 7 fathom,there it is alſo verie good lying for ſouth and ſ. ſ. eaſt windes, in clean ground of ſmall white and black ſand.

Betwixt the Scawe and the Helmes in the farewaye it is deep 18, 16 and 15 fathom. Betwixt the Helmes and the maine land, there is at the ſhoaleſt 3 fathom water. When

you

you come from the northwardes throug betwixt them until you come thwart of the ſouth-end of the rockes, there runneth of a little riffe from the Helmes towards the ſtrand, where the greate ſtones lye called Bourſer riffe, but keeping in three fathom, you cannot take hurt of that riffe. You may well run out againe by that ſouth-end towards Sea-buy. So that you may ſayl round about the Helmes with ſhippes that are not of very great draughts.

Betwixt the Helmes & Leſou, a good wayes from the Helmes, it is 20 & 25 fathom deep, ſoft ground, but one league from the Helms lye ſome rocks or ſhoals, where of you muſt take heed.

To the weſtwards of Leſou lye the Dwaelgrounds, to the northwards of the foreſayd riff, that lyeth of from the ſouthweſt-poynt of Leſou, where the flat Church ſtandeth upon. Which are very uneven of 3, 4, 5 & 6 fathom deep. Of theſe and more other ſhoals & uneven grounds betwixt Leſou and Sea-buy, reade the deſcription of the norther-part of the Belt.

About a league n. n. w. from the weſt of Leſou ſ. ſ. e. ſomewhat ſoutherly from the point of the Scaw, & e. ſ. e. from the little Helmes, there lye two or three little low Iſlands or rocks, a little above water; betwixt theſe Holmkens, & the Helms, it is 20 fathom, but betwixt theſe Holmkens & Leſou five fathom deep, to the northwards of them is farre flat, four and five fathom deepe ſand ground.

If you wil ſayl by night of from the Helmes of from the hig land of Lacklie towards Leſou with a ſ. w. or ſ. ſ. w. winde, then ſayle no nearer becauſe of theſe little Iſlands and ſhoals then ſ. e. and by eaſt with that courſe you ſhall run over thoſe ſhoals or flats (lying to the northwards from the foreſayd Holmkens) in ſix or ſeven fathom, afterwards it will be deeper again, nine, ten and twelve fathom, go then e. ſ. e. ſo long untill that the eaſt-end of Leſou be ſouthweſt from you. When that eaſt-end beginneth to come ſouth & by weſt from you, then you come on againſt that flat, or rif, which ſhooteth of from the northeaſt end of Leſou towards the Trindell. It doth ſhoale up from 14, 12 and 10 fathom, unto 8, 6 and 4, and alſo to 3 fathom. If you be ſomewhat near to Leſou, 3 fathom fallet a good whiles, and then it will be again deeper, fur 16 and 15 fathom, and then verie deep. When that foreſayd northeſt-end of Leſou is ſ. w. from you, then you are cleare of that flat. The Helmes and the Trindel lye eaſt & by ſouth and weſt and by north 7 leagues aſunder.

When you come from the Scaw with a ſ. w. or w. ſ. w. winde, and that you wil ſayl throug within the Trindel, that is, betwixt the Trindel & Leſou, it is beſt that you goe ſuch a courſe, that you may make your wayes good ſ. e. and by ſouth and then you ſhall run alongſt about the middeſt of the channell, throug betwixt the Trindel, and the foreſayd low rockes, (which lye n. w. of from the north-poynt of Leſou, and ſ. ſ. e. from the point of the Riff of the Scaw.) At the deepeſt in this farewaye, betwixt the Scaw and Leſou, it is 23 and 24 fathom, being paſt over that, you ſhall come againſt a banck of 8, 7 and 6, and alſo into 5 fathom, & then you ſhall be about due weſt, or a little more norterley or ſoutherley from the buye upon the Trindel. Afterwards it will be again deeper, if you be in the rigt fareway, to witt, 7, 8, 10 and alſo 12 fathom.

Not for to ſayl within the riff, or the northeaſt poynt of Leſou, it is good to run then ſomewhat more eaſterly, to witt, ſ. e. or ſ. e. and by eaſt, untill you come againſt the foreſaid riff that lyet of from the n. e. point of Leſou, which you may ſound, & ſo runne about by it in 5, 4 and alſo 3 fathom. When the n. e. poynt of Leſou, (that is the poynt with hommocks) is ſouth and by weſt from you, then you come againſt the rif, when that poynt is ſ. ſ. w. from you, then you are right thwart of the riff, but when the poynt is ſ. w. from you, then you ſhall be paſt and cleare of the riff. Being gotten about it towardes Anoute, it will be deepe 30, 35, and alſo 40 fathom.

He that commeth by night about the Trindell, muſt not ſpare his lead, on the outer ſide, that is on the eaſt ſide of the Trindell you may not come nearer by night, then nine or tenne fathom, & then you ſhall not be farre of from it.

When you ſayle cloſe alonghſt without the Trindell in cleare weather, and that you ſtande without board, upon the bendes of the ſhippe with your feet by the water, then you can even ſee Leſou. If that then in cleare weather ſtanding ſo without the ſhip, you cannot ſee Leſou, when you are about thwart of the Trindel then you runne fatre enoug alongſt without the Trindel.

The Trindel & the riffe of Anout lye n. w. & n. e. or as ſome ſay ſ. ſ. e. and n. n. w. 9 or 10 leagues aſunder. Betwixt Anout & Leſou in the right farewaye, it is 25 fatum deep, but to the weſtwards of it, to witt, rigt betwixt the Iſlands Anout and Leſou it is ſhoale water, of 7 & 8 fathom, you may ſayle there over theſe flats and ſhoals through betwixt Anout and Leſou into the Belt. Depths betwixt Anout and Leſou.

Anout is upon the weſt ſide verie foule, and farre of to Seawards from it, lye manie uneven dwaelgrounds of 2, 3, and 4 fathom.

When you ſayle with a ſ. w. or weſterly winde from Leſou in 3 or 4 fathom, you neede not ſayle on more eaſterly then ſ. e. and by eaſt, although it be by night, you ſhall with ſuch winde and courſe run cleare enough off Anout. When as that you reckon to have the length of the riffe, goe then on ſouth ſoutheaſt and ſouth and by eaſt, for to ſayl a weather of Coll. But by day or when you can ſee about you, not more leewardly then ſouth ſoutheaſt. When you ſayle of from the foreſayd poynte of Leſou to Anout, with a ſouthweſt or weſt ſouthweſt winde, as is beforeſayd, & make reckoning to come by night by Anout, then you can not doe better, at to goe 8, 10 or 12 glaſſe (according as the winde ſhall blow freſh) on ſ. ſ. e. until you come againſt the ſhoaling of Anout, & looke for the daye, that running not to far to leewards of the poynt of the riffe, you may the better gett a weather of Col. Likewiſe, when you come of from Col with a ſouthweſt or ſoutherly winde, & runne about a halfe league alongſt without Coll, you neede not alſo ſayle more northerly, then northweſt and by north, that goeth alſo a good waye alongſt to leewards of Anout riffe, & ſo forth towards Leſou. But when you come with a northeaſt wind out of the Sound, or from Col, you muſt runne out cloſe by Coll, if you will ſail a weather of the riffe of Anout.

He that muſt lye by or turne to windwardes betwixt Leſou and Anout, and is bound for the Sound, let him keepe him ſelfe on the weſt ſide of the farewaye, when he is a league or two a weather of Leſou, upon thoſe foreſayd flattes, or 4, 6 and 7 fathom, when as that he beginneth to come within a league or two of Anout, there it will be again deeper, but uneven the one caſt at leaſt a fathom more or leſſe then the other, when that you ſhall begin to get that uneven ground of 16, 20 & alſo 13 fathom, then is Anout yet about 3 leagues ſouth from you; comming neare Anout it wil be verie uneven, at one time thirtie, and then ſone againe 15, 17 & alſo 20 fathom.

If you wil ſaile towards Leſou with a ſ. w. winde, comming about the Riffe of Anout from the ſouthwardes, then goe not on more weſterly then n. w. If you goe on more weſterly, eyther w. n. w. or n. w. and by weſt, then you ſhall come ſoon upon the flatte betwixt Anout and Leſou, and ſhall finde firſt tenne, and then by little and little 6, 5 & 4 fathom. When that with the n. w. waye you beginne to gette Leſou in ſight, then it lyeth high, that is, the weſt-end about w. n. w. & the n. e. end, where the riffe lyeth of, about n. n. w. from you. When you come ſo neere to Leſou, that you can ſee the eaſt-end out of the toppe in cleare weather, about n. w. from you, there it is 30 and 34 fathom deep, that laſteth ſo long untill that the foreſayd eaſt poynt be ſ. w. from you, but when that poynt is ſ. ſ. w. from you, then you are rigt twhart or upon the poynte or ſhoaleſt of the Riff, then you ſhall runne over there in 3, 4 & 5 fathom: When that foreſayd poynt commeth to be ſouth and by weſt from you then you are paſt and cleare of the Riffe. Depths by Leſou.

Betwixt Anout and Waesbergen in the farewaye, it is deepe 21, 22 & 23 fathom, betwixt them lyeth alſo a banck of ten, twelve, fourteene and ſixteene fathom. When the northermoſt high hill of Waesbergen is northeaſt from you, then the poynts of Anouts riffes are ſ. w. from you but when that hill is northeaſt and by eaſt from you, and that you beſomewhat nearer Norwaye then the riffe, then you are upon that banc. When you come upon it by nigt, then Depths thwart of Anout.

then goe on south, or south and by east, according at the winde shall bee, & then you shall get againe deeper water. There lyeth yet another banck betwixt the riffe of Anout and Valckenburg, which lyeth alongst unto Haland, which at some places is not deeper then 8 fathom. When the poynt of the Riffe is about south & by east, and the higland of Anout is about south and by west from you 4 leagues, there lyeth also a banck of 14 or 15 fatum.

The riffe of Anout lyeth of from the northeast-poynt of Anout about e. n. e. a league and half into Sea, and at the end lyeth drye above water, which is exceeding steepe and needle to. The north-side (when you come from the nordwardes or the westwardes) you may sound, & runne alongst by it, in 17 or 18 fatum: but comming from the southwards, you cannot (in no wise) come neare it by your lead, for on the south-side close to the Riff, it is 30 and 35 fatum deep.

On the north-side of the riffe, you may anchor at many places in 10, 11, 12 and 13 fatum. When you anchor in 11, 12 or 13 fatum, so that the fire-beakon be s. e. and by south, and the hig land of Anout, which is the west-end, about s. w. and by west from you, then lyeth the outermost-end off the riffe east and by north from you, there is verie good lying for e. s. e. s. e. s. and s. s. w. windes. When you set sayle from thence, and are bound to the Sound, then you may boldly without feare (eyther by nigt or darke weather) sayl alongst by the riffe in 16, 17 or 18 fatum, untill thwart of the end, keeping in such depth you can take no hurt of it. Comming by the end, it is 24 & 25 fatum deepe, but when you come about the poynt, and beginne to goe on s. s. e. then you have presently close to the riffe no ground in 30 and 35 fatum. The riffe of Anout and Col lye one from the other s. e. and n. w. about 10 leagues asunder. In cleare weather you may easily see from belowe both Coll and Anout, when you are betwixt them both. For to sayle from the riffe to the Sound with a w. s. w. winde, you need not sayle nearer with a ship that sayleth wel, then s. s. e. with that course you shall sayl farre enoug a weather of Coll. Comming neare the Coast of Zealand, that you may sound in 14, 12, 10 and 8 fathum deepe.

Road under Anout-riffe.

Depths betwixt Anout-riff and the Sound.

Betwixt Anout & Zealand, in the farewaye it is 18 & 20 fatum deep. Betwixt Anout and Zealand 15 a 16 fatum but in the farewaye betwixt Anout and Coll, it is deep 20, 21, 22 and 23 fatum. To the southwards of the westwardes of it, it is shoaler, to wit 19, 18 and also well 14, 13 & 12 fatum, according as you come to the westwards but towardes Norwaye it is deeper, to wit 24, 25, 28 and also 30 fatum, whereby you may perceive whether you be neareſt the Norway-side to the eastwart of the fareway or to the westwart.

Divers bancks. About n. w. from Coll 4 leagues, & s. e. & by east from Anout, there lyeth a banck of 9, 10 and 12 fatum.

About east & by south from Anout, so far that you cannot well see it from beneath, but may see it out of the top & n.w. from Coll, there lyeth also a banck of 16 fatum, grosse sandy ground; as if it where ground of the Riffe.

South and by east about 8 leagues from the south off Anouts-riffe, s. e. & by south from the south-end of Anout, and west and by north from Coll about 5 leagues, lye the Lowse-groundes, upon which is no more then 8 foot water. He that commeth of from Anout-riffe, being bound for the Sound, and goeth not more southerly then s. s. e. shall not sayle within these grounds, but with a south and by east course he should fall with them. He that commeth out of the Sound, being bound towards Anout, should (with a w. n. w. course of from the Sound) also sayle within the same, therefore he that is bound with a bare winde from Anout to the Sound, or from the Sound to Anout, must be carefull thereof.

Louse-ground.

Haselin The Island Haselin lyeth from Anouts-riffe south 11 leagues distant, and from Coll s.w. & by west 8 leagues, which is on the north-side, or outer-side very full of riffes and shoales, but on the south-side or inner-side towards Zealand it is indifferent clean, so that you may well have roade there. From the east-end of Haselin lyeth of a Riffe n. n. e. and n. e. and by north, towardes Norwaye 3 leagues into Sea, untill within a league near to the Lowse-grounds: He that must turne to windewardes, with southerly or northerly windes, and runneth somewhat far over westwarder into the bay, must be very carefull, and take heed there of, because it is there about very uneven of depths, & uneven grounds, and therefore you cannot well come neare then by your lead; but the Coast of Zealand you may come neare in 6 or 7 fatum by your lead.

If it should happen that you must lye by, in the Scawe reach in long darke nigts or mistie weather, then observe these directions following: If you be betwixt the Scawe & Lesou, then you may keepe your self well bouldly to the southwards or westwards, but use the lead much: About the Helmes & the Scawe you may come neare the shoare into 10, 12 or 15 fathum, before you need to cast about. If you be by your reckoning thwart of Lesou, you may come neare it in 10 or 15 fathum: But if you be betwixt Lesou and Anout, there you may runne upon the flats in 5, 6, 7, 8 or 10 fathum. If you betwixt Anout, Haselin and Coll, there you may runne to the south shoare in 15 & 16 fathum, but betwixt Haselin and Zealand in 10 or 12 fathum.

It is best in anie wise to keepe you reather to the south shoare, then to the Norwaye-side, but you must be verie carefull of your lead, and use it verie much.

From Coll to the Island Haselin, it is s. w. and by west 8 leagues, you may sayle throug betwixt Haselin and Zealand, untill you come into the Belt: The Coast of Zealand is a fayre strand, but betweene Fishers village and the Castle Cronenburg, lyeth a bancke a little halfe league from the shoare of two fathom, and runneth with a riffe to the shoare, and is 4 fathum water, as also, to the westwards of Haselin, there shooteth of a riffe to Seawards, which you must avoyd.

About e. s. e. from Haselin goeth into the Land a great broad Sound, which without at the entrance of it, is a great league broad, there is good anchoring for a n. winde, in 5 or 6 fathum. The Sound divideth it selfe within the land into three parts, the first or tho eastermost, called Roskildifiourd, goeth up s. s. e. unto Rockil, the second, called Isenvoort, lyeth into the land south & south & by west at least 5 or 6 leagues, unto Isick by and Holbeck: within it is up least 2 leagues broad, and in the middest lyeth a great Island. The third lyeth to Draecks-holme, also at least 5 leagues s. w. and n. e. like the Coast towards the Belt. The Coast of Zealand, betwixt Haselin and the Sound is a clean Coast, you may sayle alongst by the Land in 6 or 7 fathum, besides the foresayd riff which lyeth betweene Fishers village there is upon it but 4 fathum deep, but come no neare to it by nigt then 12 or 13 fathum, for at some places it is steep, & shoaleth up suddenly. Where that little New Church standeth, thwart of it, is flat 3 and 4 fathum, & to the westwards of that wood which standet to the westwards of Lapsand, you may come in 4 fathum by the shoare, without taking hurt, but comming neare Lapsand, you must keepe further off from the shoare, in 7 or 8 fathum, or els you should get behinde the poynt of Lappesand.

Lappesand lyeth about an English mile to the nordwards of Elsenoore, or the Castle of the Sound, lying on the west-side of the sayle way, alongst the coast of Zealand. For to avoyd Lappesand you must be careful of these marks, there standeth a house to the westwards of the Kings mil, to the westwards of the Castle of Cronenburg, keep the Chimney of that house to the westwards of the front of the Kings mil, and then you can take no hurt of Lappesand, then runne alongst by it in 6, 7 or 8 fathum, so long until that the east-end of the Island Ween commeth a little without the castle of the Sound, keepe that so standing, & saile so in 6 or 7 fathum, somewhat close alongst by the Castle, you may plainly see lying throug the water all that can hurt you.

If you will shift roads out of the Sound, and anchor behinde Lappesand, then sayle thwart of the foresaid Kings-house called the Caux or Kings mill, so that it doe stande about s. or s. and by w. or s. and by east from you, anchor there in 6, 7 or 8 fathom, there is good lying out of the current and sand-ground but if you will anchor in 12, 13 or 14 fathum, there it is soft ground, and there goeth a strong current with southerly or s. e. windes, but you lye there better, in more roome for to saile inwardes againe

if it ſhould happen that the winde did ſuddenly ſhift out to the n. w. It happened once to one of may acquaintance, that had ankored ſomewhat to the eaſtwards of the Kingsmill, in 6 or 7 fatum and the winde did ſhif in the night to the n. w. when they weighed their anchor the ſhippe fell towards the lant, and before they could get the ſhip about before the winde, they did runne in three fatum over the poynt of Lappeſand.

From Coll to Elſenoore or the Sound, the courſe is ſ. e. & ſ. e. and by ſouth 4 or 5 leagues. About halfe wayes betwine-boden. twixt Coll and Elſenburgh lye the Swyne-boden, which are ſome foule rocks, and ſuncken rockes, which lye of to ſeawards a good wayes from the land, but when you ſayle towardes the Sound comming from Coll, then keep the Iſland Ween hidden behinde the Caſtle Cronenburg, and then you cannot ſayl foul of the foreſayd Swyne-boden, when that you are paſt them, & runne in amidſt the channell, for to avoyde Lappeſand, or elſ if you bringht the eaſt end of Ween, then again right without the caſtle, or keepe in 7 or 8 fathom from the Selands ſide, you can not take For to voyd Lappe-nd. hurt of Lappeſand, when you are come within the caſtle, you may anchor where you pleaſe. The ſhippers doe commonly anchor all alongſt by the land, untill to the ſouthwards of Elſenoore, there it is 15, 16 fathom deep, but with a ſoutheaſt winde it is bad lying there.

Towards the Iſland Ween lyeth a banck of 8 or 9 fatum it is better lying there, but it is ſomewhat far from the land.

For to yl out the ound. When you will ſayl out of the Sound towards Coll, & are come to the end of Lappeſand, then goe n. w. & by weſt for to avoyd the Swyne-boden, untill that Coll be n. n. e. from you, then goe boldly n. w. and by north, or n. n. w. according as the wind ſhall be, for with a n. e. winde, you muſt runne out n. n. w. very cloſe alongſt by Coll, for to ſail a weather of the Riffes of Anout and Leſou.

For to ſayl to Elleboge or Malmuyen, and Lands-Croone.

IF you wil ſayl out of the Sound to Elleboge or Malmuyn, goe from Ween ſoutheaſt and ſoutheaſt and by ſouth, & then you ſhall ſee the ſteeple or the towne lyingh before you, ſayle towards it, in that farewaye, it is moſt 7 or 8 fatum deep: when you come within the ſouth Holmes, it wil be 5 or 6 fatum deep it doth ſhoale up ſuddenly, from the 7 fatum to 5 but before the towne it is ſhoaler water, you may anchor there in 3, 4 or 5 fatum if you will, you may lye alſo at the Head in 3 fatum, there it is good lyingh, buth with a n. w. winde it is a bad roade for it bloweth there open in.

If you wil runne out againe to the ſouthwards of the ſoud Holmes towards Faſterborne or Steden, you muſt take heed of the ſouth Holmes, which are foule round abouth. From the north end ſhooteth off a riffe a great wayes: Upth- on the eaſt ſide, at the ſouth end, it lyeth very farre off ſhoale, there lyeth alſo the Northvliet, that is a ledge of rocks under water, but you may perceive it through the water, you ſhall leave it on the ſouth Holmes ſide, to witt, uth- on the ſtarboard ſide of you: but the Southvliet, which lyeth thwart of Old Faſterborne, you ſhall leave on the larboard ſide, & ſo runne throug betwixt them, it is in that farewaye at the ſhoaleſt 4 fatum deep. When you com of from Malmuyen, and that the ſteeple of Coppenhaven come to the ſoud-end of the ſoud Holmes, then you are paſt the nord-vliet. When you ſayle thus throug, you muſt be very carefull to avoyd theſe foreſayd grounds. You may runne out alſo alongſt by the ſtrand of Schonen, & leave bot the nord-vliet lying on the ſtarboard ſide: you may ſound that ſtrand in 4 and 5 fathom as alſo the riffe of Faſterborne.

ds- He that wil ſail into Lands-croone, muſt know that there one. lyet a ſhoale before the havens mouth, and muſt runne in about to the ſouthwardes of it, there ſtandeth a little church on the north ſide, by the water ſide, & a Gentelmans houſe ſomewhat farther within the land, bring that Church over the houſe, and then you are cleare of the ſhoale, then ſayle in rigt with the poynt, and anchor there in 3 fatum.

al- To the northwards of old Faſterborne goeth in a deepe, er. called Hull or Hulwater, it is a deepe haven for ordinarie ſhip, which goeth in moſt northeaſt in 3 or 4 fathom, you may ſound it in alongſt by the foot ſtrand of old Faſterborn in three fathom, leaving old Faſterborne on the ſtarboard ſide, it is there large & broad enough.

How men ſhall ſaile out of the Sound, through, the ſhoales or grounds, and into the Reefshol.

HE that will ſaile out of the Sound towardes the ſhoales or Groundes, let him goe on ſoud & by eaſt, or he may ſound alongſt by the wood, in 5 or 6 fathom, & then he ſhall not ſayle a miſſe of the norther buye, for it lyeth in 5 or 6 fatum, on the nordend of the Midleground, to the eaſt wardes of the buye, it is 7 fatum deep, but in the rigt farewaye thwart of this buye it is 9 or 10 fatum deep: the markes of this buye are, when that end of the wood is w. ſ. w. from you then you are thwart of the norther buy, & there ſtandet then a flat ſteeple, a prettie wayes to the ſouthwards of that wood, there commet alſo three hommoks to the northſide of the town, theſe are all marks of the norther buye. Norther Buyes.

From the Norther buy to the Middle buye, the courſe is ſouth and by eaſt. When you come by the Middle buye, then commeth the ſouthermoſt mill on to the ſouthwardes of the towne Coppenhaven, and the flat ſteeple commeth within a handſpikes length unto the ſharpe ſteeple, that are the markes of the Middle buye, or ſecondbuye in the ſhoals or grounds, it is here 8 and 9 fathom deepe.

From the Middle buye to the third, and forth to the buye upon Caſper Caniell, the courſe is ſouth and by eaſt. When the white caſtle commeth over the ſharpe ſteeple, they are the markes of the fourth buye, or the buye upon the Caſper Chaniell, the third lyeth at the ſouth-end of the Middle ground, it is not there verie broade, but ſteepe on both ſides, the deepe there abouts is 7 or 8 fatum: If you muſt turne to windewards there, you muſt caſt about, ſo ſoone as it doth begin to ſhoale, as well on the one ſide as on the other. Third Buye. Buye upon Caſper Chaniel

The fourth buye lyeth on the nord-end of Draeker upon the flat, over againſt it lyeth a rock above water, called the Fiſher, eaſt and by north from the buye there you may well ſound the ſouth holme, for it is there ſhoale water. Betwixt the third and this fourth buye commeth runningh out a Channel from Coppenhaven, which men doe call Caſper Caniell, or the Kingſdeep. Fiſher.

From the fourth buye or Caſper Caniell, to Draker riffe, the courſe is ſouth & ſouth & by eaſt the land off Draecker you may ſound in 3, 4 and 4 fathom and a half.

The Riffe off Draecker lyeth a good wayes without Draker, it lyeth off a halfe league eaſt into ſea. The markes of the buye upon Draker-riffe are theſe. When the ſteple of Copenhaven commeth to the ſouthwards of Draker to the wood, then you are thwart of the buye. The ſhoaleſt water that you ſhall finde betwixt this buye upon Draeker-riffe, & the foreſayd fourth buye, is 5 fathom leſſe two foot. Fort to ſay by night throug the ſhoales or grounds, go from the Iſland Ween ſouth and by weſt ſo longh untill that you come thwart off the point off the wood in 4 fatum, then keep ſomewhat off from the ſhoare, and goe on ſ. e. & by eaſt untill that you come in 7 fathom, and then forth ſ. ſ. e. untill you be over the Middle-ground, the firſt or northermoſt buye, as is beforeſayd, lyet in 5 fathom, but you may well goe over to the weſtwards off it, in 3 or 4 fathom, keepe then ſomewhat off, untill that you come in 8, 9 or 10 and 11 fathom, and ſayl then on ſouth unto Caſper Caniell, there it will be by little ſhoaler, to wit, about 8 fatum. Thwart off Draker it is uneven for to ſound, the one caſt five and the other four fathom, but go your courſe, except you know that you where neerer the one ſhoare off Draker, the ſouth holmes, then the other. Without Draker it will be againe 6 & 7 fathom deep. Full ſ. e. From Draeker, about a good halfe league lyeth ſtone, three foote under water, and is about two rods length from the greate where Cornelis Janſz Buysman, from the ſtreeck in September 1628 run upon with his ſhipp. Riffe of Draker.

For to ſayle into Riflholl or Coppenhaven, commingh from the northwards out of the ſound; runne along ſomewhat to the eaſtwards of the Norther buye, for to avoyd the plate, or Midle-ground, which lyeth to the weſtwardes of the buyes in the ſhoals, which upon the northend is not deeper then 12 foote, & on the ſouth end 8, 9 and at ſome

places 10 foot deep, all hard ſtony and rocky ground, kepe the ſounding of the ſhoare on the weſt-ſide in 2, 3 or 4 fat. ſo deep as you pleaſe, untill you come before Copenhaven, on that ſide you can take no hurt, it is there broade & wide, and lyeth in ſouth and by weſt; in the middeſt betwixt the ſhoare and the middle ground, it is 5, 6 and 7 fathom deep. If you ſhould turn to windwards there, then come not neerer the Middle-ground then in 4 fatum, but the weſt-ſhoare you may run to by your lead as you pleaſe.

From the north-end of the Iſland Draecker runneth off a Riffe to the northwards, upon the point of that Riffe lyet a buye, which men doe call the buye in the Reefsholl, leave that on the larboard ſide and run, untill you come before the Towne and anchor there. If you come from the ſouthwards and will ſayle unto Reefsholl, then run alongſt to the eaſtwards of the foreſaid fourth buy (which men do cal the buye upon Caſper Caniell) then luffe up preſently about by it, and goe on n. w. in to the Kings-deep, unto the buye in Reefsholl, which lye one from the other due n. w. and ſ. e. you ſhal then alſo ſee rigt out a head, in the n. w. within the land a flat ſteeple right over a great houſe or Hoſpital, that ſtandeth cloſe upon the Sea-ſide, kepe them ſo one in the other, and ſayle rigt in with them, and ſo you ſhall run in rigt amidſt the channell, it is there in the fareWaye 5, 6, 7 and 8 fathom deep. This Kings-deepe is ſomewhat uneven of ground, therefore be carefull in uſing of the lead, and come not to neere the north-ſide; that is the Middle-ground, which is very foule & rocky: from the ſouth ſhoare (about halfe wayes betwixt the two foreſayd buyes) it lyeth off ſomewhat ſhoale, of that you ſhall have at one caſt 5 or 6 and the other but 3 fathom.

Buye in the Reefsholl.

When you come by the buye in the Reefsholl, which lyeth upon the point of the norther Riffe of Draecker, leave that on the larboard ſide, and runne on ſouth about by it, unto Copenhaven. The marckes of this buye are theſe: tere lyeth a round hommock or great rock about half a league within the land, when that is right eaſt from you, then it commeth rigt with a flat ſteeple which ſtands about a league within the land, then you are even thwart of the buye, or poynt of the foreſayd riffe. Theſe marks will ſerve at timus when the buy lyeth not there. A little to the northwards of that buy lye the great ſhips which tarry for wind in 5 or 6 fathom, there is good anchor ground.

Markes of the buy in the Reefsholl.

Kuyck. From the buye upon Draker-riff unto Kuyck, the courſe is ſouthweſt 5 great leagues, but unto the riffe of Faſterborn or Steden, it is ſouth and ſouth & by weſt 5 leagues, in the fareway betwixt Draecker and Faſterborn it is 6, 7, and 8 fathom deep, but between Faſterborn and Steden, 10 or 12 and 13 fathom, but by Steden deepeſt.

Road under Steden. Under Steden you may anchor as well to the ſouthwards of it, for northerly, as to the northwards for ſoutherly windes. If you wil anchor for northerly winds, then run in betwixt Steden and Meun, a good wayes into the bay, ſo that the ſteep poynt of Steden lye about n. n. eaſt from you, anchor there in 8 or 9 fathom, and you ſhall lye landlockt for north and northweſt winds; But if you will anchor for ſouth or ſouthweſt winds, then anchor to the northwardes of Steden, ſo that the ſoutheaſt poynt be ſouth & by eaſt, or ſ. ſ. e. and the n. w. poynt n. w. or w. n. w. from you, there it is good lying in 7 fathom, the ground is there ſmal white & black ſand. If you wil ſet ſayle from thence to the ſhoales or grounds, then goe not more northerly then northeaſt ſo long untill that you come by the riffe of Draker, then run about by it in 5 fathom.

To the northwards of Steden the coaſt of Zeeland goeth in with a great bay into Kuyck, it is there all to the weſt wards ſhoale water in five, ſix and ſeven fathom, and good anchor ground, ſo that you may anchor every were there abouts.

The riffe of Faſterborne lyeth off ſ. w. to Seawards a league and a halfe. It is a fowle ſtony and rocky riffe upon the end of it lyeth a buye in 4 fathom. You may run about by it upon your lead in 5 fathom with ſmall ſhips of little draugts. Men doe hold for a marck off this riffe that when the ſteeple of Faſterborn and the caſtle come one in the other, that then they are thwart off the point of the riffe. He that commeth from the northwards & will ſayl about Faſterborne with a northerly or n. e. wind, and that he will come ſomewhat neere about the riffe, & commeth in 5 or 6 fathom, he muſt be very quick in uſing the lead. When old Faſterborne Church commeth halfe wayes to the Caſtle and the Church of Falſterborne, then beginneth to come the worſt & ſhoaleſt of the riff, that laſteth untill that Old Falſterborn Church commeth to the eaſtwards of the houſe of Falſterborne, before that you are not paſt the riffe. If you ſhould luffe up ſooner about by it, you ſhould run in great danger with a ſhip of great draugt, you ſhall have (commingh againſt the riffe) the one caſt 4 or 5, and then preſently 3 fathom upon it, all hard ſtony ground. Therefore it is beſt with a ſhip that draweth 12 or 14 foot, to come no neere this riffe then in 6 or 7 fathom.

Markes of the Riffe of Falſterborne.

If (when you come from the eaſtwards) you will ſayle about Falſterborne, and come alongſt the ſhoare with a n. e. wind in 6 or 7 fathom, & Falſterborne is about n. or n. n. e. from you, then it ſhoaler up very faſt in 2 fathom or 2 fathom & a halfe. Therefore keepe you further of from the ſhoare in 10 or 12 fathom, ſo longh untill that the Caſtle be n. e. or n. e. and by north from you, or that old Falſterborne Church come halfe way to the caſtle of Falſterborn and Falſterborn Church, then you cannot ſayle upon the riff from the eaſtwards, but runningh about by it in 5 fatum, then you muſt be very carefull in uſingh your lead. But if you will come neere the riff in four or five fathom, when old Falſterborn Church commeth to the eaſtend of Falſterborn, you ſhall run in great danger fort to come on ground. When you come within the Riffe, you may run alongſt by the coaſt of Schoonen in four fathom without takingh hurt.

He that commeth out of the Sound, & is bound to the ſouthwards of Meun, may come ſo near Meun as he will, & loſe up to the weſtwards by the poynt & anchor where he pleaſe, in 5 or 6 fathom. On the north ſide of Meun you may alſo anchor in 6 fathom, behinde a little riffe that ſhoteth of from the north poynt, for an eaſt, ſ. ſ. w. and weſt wind it is there all over flatt, and good.

From Meun to Steden, the courſe is n. w. & by north 4 leagues, betwixt them both goeth in the Wolf-ſound, or Wolve-gat, that runneth paſt Werdenborgh and Neſtveld through the Goverſound out into the Belt.

Meun and Falſterborne lye north and by eaſt, & ſouth and by weſt 5 leagues aſunder.

Of the Tydes & Courſes of the Streames.

In the Scawe reach, betwixt Maelſtrand and Waersbergen the ſtreame goeth moſt ſtill with the winde and it rippleth there ſometimes in ſome places, as if there where ſhoals, this you may finde in calme weather, if you let a lead fincke to the ground.

By the Scawe the Streame commeth moſt commonly falling out at the Belt towards the land of northeaſt, eſpecially when the winde hath blown a while out of the eaſt or northeaſt, & runneth alongſt by the Norwaye to the northwardes.

Men commingh of from Anout, that will ſayle by nigt with a weſterly winde, towardes to the Scawe, or comming from the weſtwards about the Sound, migt ſoon be carried with this current under Norway a good while before they ſhould thinke of feare of it. Of this current read further in the firſt Booke.

In this fareWaye betwixt the Scawe and the Sound, & then from the Sound untill about Falſterborne, it is exceedingh neceſſarie that a Pilot (or he to whom the charge is committed) be very carefull in looking out, and be very vigilant, that he may avoide the multitude of daungers, of ſhoales and riffes lying there: The ſkielleſt and beſt experienced of all hath there enough to doe.

Through the Sound and the ſhoales or groundes, the ſtreame runneth commonly with the winde, but the moſt part of the time to the northwards before the comming of a hard eaſt winde; or when it hat blowne out of the eaſt, then the ſtreame runneth ſtill out the northwards.

Courſes and Diſtances.

From the weſt-end of the Paternoſters to the Maelſtrand, the courſe is eaſt northeaſt	2 leagues
From Maelſtrand to Winneu ſoutheaſt	5 leagues
From Winneu to Maelſound ſoutheaſt	3 leagues
From Maelſound to Waersbergen ſouth ſoutheaſt	5 leagues
From Waersbergen to Tuylo ſoutheaſt	5 leagues
From Tuylo to Laholme ſoutheaſt and by eaſt	5 leagues
From Laholme to the poynt of Turko behinde Swedereur, the courſe is weſt ſouthweſt	3 leagues
From Turko to Engelholme ſoutheaſt	4 leagues
From Engelholme to Col weſt	6 great leagues
From Maelſtrand to Nyding ſouth ſoutheaſt	8 or 9 leagues.

From

Custen van

NOORWEGEN,

Van der Neus, tot aen de Pater nosters, oock hoe de selvige Landen van Jutlant gelegen sijn.

't Amsterdam.

By Iacob Theunisz. op't water inde Lootsman.

O O R W E

Drommels

Bergh benoorden de Drommels

Omgekeerde Boot

Maerdou

Vlieter

Rottekarr

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche mylen 20 in een graet

Noordwesten

Stuhil

Kalbrik

Oosthoek

Oude Tempsteal

Schagen

Anstoo

Copenwick

Ferder

Akersloot

Ittrum

Kerssand

8

From Maeiſound to Nyding the courſe is ſ. w. and ſ. w. & by weſt, a league and a halfe.
From Nyding to Waersbergen ſ. e. about 5 leagues
From Waersbergen to Coll ſouth and by eaſt 12 leagues
From the ſouth-end of Swedero to Coll ſ. w. 4 leagues
From the Riſſe of the Scaw to Maelſtrand e. n. e. 13 leagues
From the Riff of the Scaw to Nyding ſ. e. and by ſouth 13 leagues
From the Riſſe of the Scawe to Waersbergen e. ſ. e. 20 leagues
From the Riſſe of the Scawe to Col alongſt without the Trindel ſouth 30 l.
From the Riſſe of the Scawe to Leſou ſ. ſ. e. 8 leagues
From the Riſſe of the Scaw to the Trindel due ſ. e. 8 leagues
From the Trindel to Anout-Riffe ſ. e. or as ſome will ſayle ſomewhat more ſoutherly 10 leagues
From Anouts-Riff to Coll it is right ſ. e. 10 leagues
From Anouts-Riffe to Haſelin ſouth 11 leagues
From Coll to Haſelin ſ. w. and by weſt 8 leagues
From Coll to Elſeneur the courſe is ſ. e. and ſ. e. & by ſouth 5 or 6 leagues
From Lapſand to Ween ſ. ſ. e. 3 leagues
From Elſeneur to the norther buye in the ſhoales or grounds ſouthoaſt and by eaſt 6 leagues
From Elſeneur to Lanſcroone e. ſ. e. 4 leagues
From Ween to Malmuyen ſ. e. and ſ. e. and by ſouth 6 leagues
From Malmuyen to Reefsholme weſt 5 leagues
From Malmuyen to Steeden ſ. ſ. w. and ſ. w. and by ſouth 10 leagues
From the buy upon Draker-riff to Kuyck ſ. w. 5 great leagues
From the buye upon Draker-Riff to Steden, the courſe is ſouth and by weſt 5 great leagues
From the Buye upon Draker-Riff to the Buye upon Falſterbornes-Riffe, the courſe is ſouth 5 leagues
From Meun to Steden n. w. and by north 4 leagues
From Meun to Falſterborne north and by eaſt 5 leagues
From Meun to the Buy upon Falſterborn-Riffe north 4 or 5 leagues

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the land betwixt Maelſtrand and Waersbergen.



Thus ſheweth the land of Waersbergen, when you ſaile alongſt by it, from Anout into the ſound.



Thus ſheweth Anout, when you ſaile off from Leſou.

Thus ſheweth Leſou when you ſayle from the Scawe towards it.



Thus ſheweth Zealand, when you come from Anout, and will ſayle toward the Sound.



Thus ſheweth the Land of Schoonen off from Col unto Faſterborne, when you ſayle throug the ſhoales or grounds.

The fifth Demonſtration,

In which are ſhewed

The Coaſts of Norway from the Paternoſters to the Naze.

ater-ſters.

THE weſt-end of the Rockes (which men do cal the Paternoſters) & Harmans-head, lye n. w. & by weſt ſomewhat northerly, & ſouth & by eaſt ſomewhat ſoutherly five leagues aſunder, to the ſouthwardes of them men do ſayle into Maelſtrand. Upon the Coaſt betwixt Farder and Maelſtrand, is allmoſt every where good anchor ground in 35 and 40 fathom.

From Harmans-head to Souterwixholme, the courſe is ſouth and by eaſt, ſix leagues. Betwixt them lyeth Boechſchaer, but two leagues to the ſouthwards of Harmansſound lyeth Kerckſound, which is a great river, which lyeth in far within the Land.

or-rwix m.

Northerwicksholm and Southerwicksholm, two great Iſlands, in a great ſound, which lyeth far & deep within the land upon it (far within the land) lye many little Townes, as Oldburg, Oldwat, Alleroers & Dragens, from thence commeth much fat ware. Southerwixholm and the Iſland Akerſound, lye n. w. and by weſt, and ſ. e. and by eaſt ſix leagues aſunder, and to Ottrom n. w. five leagues.

ther e-m.

trom

The Iſland Akerſound men may ſayl round about it, to the northwards of it lyeth a great Bay or Sound, lying in farre within the Land, called Ottrom.

ker-nd. as-cke.

From the Iſland of Akerſound, to the Siſters, weſt & by north 4 leagues, betwixt them lyeth the Graswycke, within the Siſters, lying from Farder e.n.e. about 7 leagues. When you will ſaile in there, you muſt leave the ſharp point on the larboard ſide, within lyeth a round Rock, which you may ſail about on both ſides, thwart of it is good anchor ground. North from this Rock lyeth a great Bay, fit for ſhips to lye in, that tarrie for a winde, within lyeth alſo a round Rock. Men doe run in alongſt by the w. land, which lyeth in firſt n. & about the Iſland n. n. e. they leave the Iſland on ſtarboard ſide, & run n.n.w. by the w. land. To the eaſtwards of Graswycke, alſo betwixt the Siſters and Akerſound lyeth Shiphill, that is a Haven where men lade Spars and fat wares.

The Siſters.

From the Siſters unto Baſt, the courſe is n. w. & by weſt five leagues. Behind the Siſters to the ſouthwards of the point of Roge, lyeth the haven of Elffang 5 leagues. When you come of from Farder, you goe muſt diſtant from the Iſland Farder n. e. and by eaſt 5 leagues. When you come of from Farder, you muſt run through within the Rocks, which lye within the Siſters, untill you come againſt the land, there you ſhall find a great gray Rock, which you muſt leave on the larboard ſide, and the ſmall Rocks that lye there within on the ſtarboard ſide, and then alongſt about by the weſt-land and then the haven opens it ſelf, which is narrow, and within flat and ſoft ground.

Copper wycke.

When you ſayle from Farder or Baſt unto Soen-water, you ſhall meet with a red poynt, betwixt the Soen-water and the Copperwycke. He that is bound into Soen-water muſt run alongſt to the eaſtwards of it, but he that is bound into Copperwycke muſt goe up alongſt to the weſtwards of it & leave it on the ſtarboard ſide. When that you come within the Lams, you ſhall eſpie a little Church upon the weſt-land, there is the lade place of the Copperwycke you may ſail up from thence to Brakenes. On the north or eaſt-ſide lyeth Holmſound, from Farder to the poynt of Roge the courſe is n.n.e. 5 leagues. At the eaſt-end of Roge you may anchor, there is a playn ſtrand, you may run throug betwixt the Roge and the Calf, but anchor under Fletto, then you muſt run throug within the two ſmall Rocks.

Roge.

Soen-water.

From the Iſland Farder to the Soen-water, north, ſomewhat eaſterly, but from Baſt n. & by eaſt. The Soen-water lyeth in moſt north upon it lye many havens & lade places, moſt on the ſtarboard ſide as you come in. Firſt there is Mos-ſound, a haven that goeth up to the eaſtwards, & then

Wykeflee. there is Wykeflee, which is a bigt behind an Iſland, afterwards Ship-hil. Sh p-hil, a Sand-bay & a very good road, that goeth ſo up alongſt to the northwards into Anſlo, & then it runnet about to the ſouthwardes into the Bottum.

Farder. From the Iſland Farder to Laerwyk the courſe is w. ſ. w. 4 leag. betwixt them both lyeth the litle towne Tousbergen in a great Bigt. And from Farder to the Iſland Baſt the courſe is n. & by w. 5 leagues, betwixt both lyet a fowle poynt. To the ſouthwards of Baſt lyet Markenboet, and the Bigt of Asko, but to the northwards of Baſt lyeth Lowſound.

Baſt.

Laerwyck. The Laerwyck is a great broad Sound, where ary many Bigts & Lade-places, where men many lye & lade Firre timber. From the eaſt-point lyeth of a great rane of roks a good wayes off. e. & by eaſt into Sea, & run in almoſt halfe the Sound, called the Larwykes Swines, where of men muſt take heed. Within in this Sound it is flat water, and ſhoale, ſo that farre within no great ſhips can lye a float.

A league to the eaſtwards of the Neſſe, or eaſt-point of Stavange. the Longeſound, lyeth Stavange, they are ſome outrockes, where men may ſayle within on both ſides, to the eaſtwards of it lyeth the Sound of Laerwyck.

The Neſſe. For to ſayle into the Neſſe, that is on the nord-ſide behinde the eaſtermoſt point of Longſound (you muſt run throug betwixt the great rock) where upon the Warder ſtandeth & the land of old Longſound, leaving the foreſayd rocks on the ſtarboard-ſide, & ſo alongſt about that rough Iſland, until you come into the Neſſe, which lyet behinde a chindle ſtrand, there you ſhall lye under a chindle of rockes likered ſand: There lye alſo ſome little rockes thwart of that chindle. This a good handſome haven, & ligt for to come into, there it is 24 and 25 fathom deep.

The Longſound is one of the faireſt havens of al Norway, & lyet n. n. e. from Jofferland diſtant one great league. Before old Longſound lyeth a hig round rocke where upon ſtandeth a great round Warder, for knowledge of thit haven.

Coninx haven. Coninxhaven that is the ſoutermoſt or weſtermoſt channel of the Longſound, & goeth in betwixt the weſtermoſt roug point and Conings Iſland, and then men run alongſt to the eaſtwards of the Baers, which lyet of from the foreſaid roug point. For to ſaile in there, you muſt run in amid channell, and anchor in the Conings-haven in 28 & 30 fathom.

For to ſayle throug within Jofferland from. Weſtkiel, the Sound lyeth throug the channell firſt n. e. & n. e. & by nord and then e. n. e. & afterwards againe n.e. & then you come to a place where the Sound is ſomewhat broader, there lyet a ſuncken rok, which you muſt leave on the ſtarboard-ſide, & edge to the north ſhoare. Being paſt that, you ſhall come againe in a very narrow ſound, which lyeth troug moſt n.e. and is at ſome places ſo narrow, that the yard armes doe almoſt touch the rockes. Being throug that narrow place, you muſt goe n. e. & by eaſt & e.n.e. untill you come twart of the Longſound, then you may ſayle in there n. n. w. or ſayle into the Sea as you will: Behinde Jofferland you may alſo anchor in 15 or 20 fathom.

Road behinde Jofferland.

The Baers. From the Baers unto the northermoſt roks or Jofferland, that is the ſouthermoſt or weſtermoſt point of Longſound, is ſ.ſ.w. a great league, going ſ.ſ.w. from without the Baers, then you ſhall finde a third part of water to Jofferland or ſhoale which you ſee quite under water about 7 foote. Betwixt them both lye two havens. Eaſtkiel and Abbefoort, men ſayl in there to the eaſtwards of the outroks of Jofferland. From theſe foreſayd northermoſt out-roks of Jofferland unto Eaſtiel, it is n. w. about a league but to Abbefoort n. n. w. & nord and by weſt alſo a league. Men may (comming from the ſouthwards, or from Weſtkiel) ſaile throug within Jofferland, into Eaſtkiel, or Abbefoort.

Weſtkiell. When you come before Weſtkiell, you may ſee within the land three hig hills, & alſo the hig land of Long-ſound, lying northwards from you, that land is altogether very eaſy to beknowne, he that ſeeth it once, and takes regard of it, ſhall know it very wel another time, when he commeth there abouts.

A league to the eaſtwards of Sandvoort lyeth the haven of Weſtkiell, a little to the eaſtwards of it lyeth Jofferland. For to ſayle into Weſtkiell, you muſt leave al the great rocks, which he of from Jofferland on the ſtarboard-ſide, and all the foreſayd little rocks of Sandvoort, and alſo a white holme where upon a maſt ſtandeth on the larboard-ſide, and run in firſt n. w. and afterwards n. n. w. and at laſt north untill you come about the weſt point, and then you muſt edge up n. w. to the north-ſide of the Iſlands, which lye within the haven, there is a Voſſe, or an Overfall of water, there you may anchor in 20 or 25 fathom.

Jofferland.

Thwart of Sandvoort lyeth a banck at Sea, which at ſome places is not deeper then 3 or 4 fathom, & lyeth alongſt to the eaſtwards untill thwart of Weſtkiell.

A great league to the eaſtwards of Sandvoort lyeth Longen. For to ſayle in there you muſt leave al the little rocks on the ſtarboard-ſide, and run ſo alongſt by the land untill you come within the Long holms which remain on the larboard-ſide, and then right into the Bight. This is a faire haven, men come into it from the eaſtwards.

Marke of Oxefort and Longen.

When you are before Oxefort and Longen, then the Drommels lye about w. n. w. from you.

A league to the eaſtwards of Oxefordt lyeth Longen, before it lyeth a little round Iſland or rock on the eaſt-ſide of the haven, upon which ſtandeth a maſt with a barrel upon a Warder. For to ſayle in there you muſt run in cloſe by that land where the Warder with the barrell ſtandeth upon, cloſe alongſt by the Warder but there ſtandeth a hand on the ſtarboard-ſide of the Havens-mouth, which poynteth that there lyeth thwart of it a ſuncken rock under water, there you muſt edge ſomewhat of from the ſhoare. Being within there, you may run to the eaſtwards againe into Sea, & come out in the Sound of Sandvoort.

Longen.

About a league to the eaſtwards of Trom-ſound lyeth the haven of Oxefordt, which is a great broad, and large Sound, lying in firſt without betwixt the rock, north Without in the comming into the weſtwards of the havens mouth, lyeth a long rock, which you muſt leave on the larboard-ſide, & ſomewhat paſt that long rock lyeth a ſuncken rock, which you muſt leave on the ſtarboard-ſide and run in ſtill north unto the weſt-poynt of the land, thwart where of lyeth a ſuncken rock which you muſt avoyd, when that you come then within the weſt-point, you muſt ſaile in n. w. and n. w. and by nord and anchor on the north-ſide of the haven, there it is wide & broad, which many bigts where you anchor every where in 20 and 25 fathom.

Oxfort.

About halfe a league to the eaſtwards of Mardouw ſtandet a litle white Church upon the Sea-ſide, to the eaſtwards of it goeth in the Trom-ſound, being a faire Sound. Without in the comming in, ſtand on the eaſt or north-ſide 2 Warders upon a hig hill, you muſt ſayle in by them, and thwart of them you may alſo anchor, and from thence you may ſayle in further behind the Iſland Trom, and the land of Maerdow, untill you come into the Sound of Maerdow.

Trom ſound.

When the Drommels are northweſt and northweſt and by north from you, then you are rigt thwart of Maerdow. If you run in ſo out of the Sea, rigt with the Drommels, you ſhall fall rigt with Maerdow, that is a certain mark to know wheter you be thwart of Maerdow, or to the eaſtwaerds of the weſtwaerds of it, but when you are cloſe before the land, or before the havens-mouth, you cannot ſee the Drommels, becauſe they are then hidden of the Cliffe-land. To anchor under the Iſland there is the ſhoaleſt water, but with a north northweſt winde, it is not ſo good to come from thence as out of the haven, but with an eaſterly winde it is better to ſet ſayl from thence and to get into Sea.

The Eaſter-gat lyeth in weſt ſouthweſt there lyeth a ſunken rock on the ſtarboard-ſide, when you ſayle in, therefore you muſt run in cloſe by the Iſland. It is not deeper there in the gat or channell then 3 fathom, but being come within it, you ſhal it deeper, you may anchor there under the Iſland in 12 or 13 fathom, or you may run up to the weſtwards into Sound, as is beforeſaid.

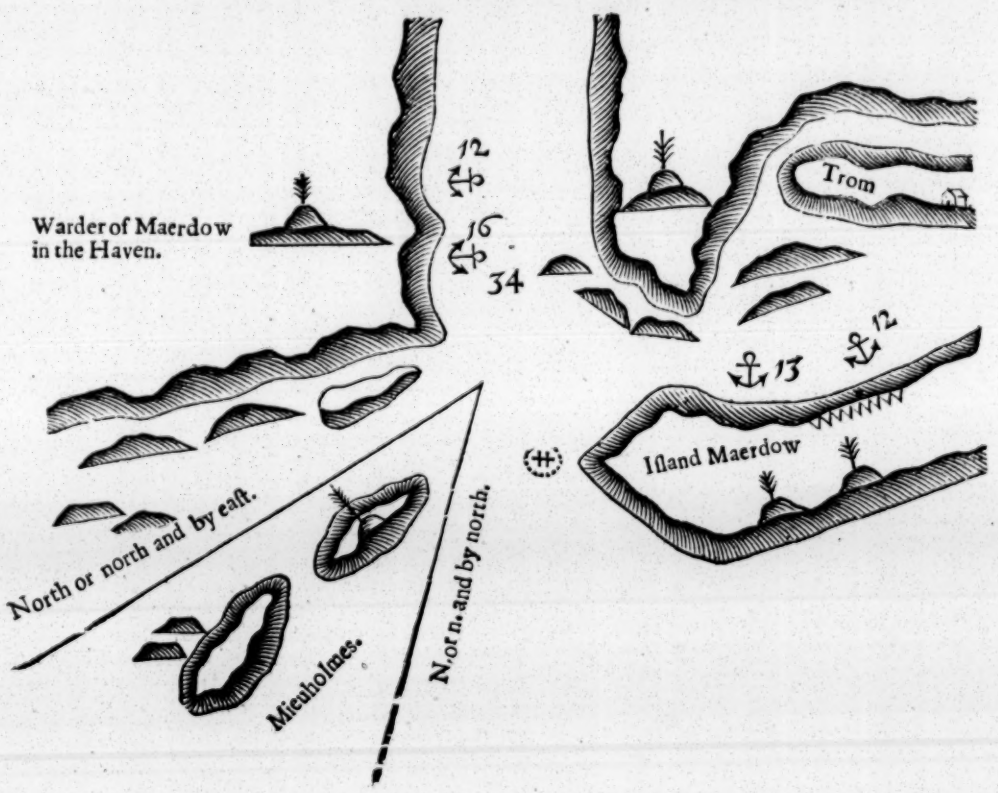
With a bare winde, or otherwiſe, you may ſaile alſo in, to this Weſter-gat of Maerdouw, to the weſtwards of Mieuholmes thus: To the weſtwards of the ſouthermoſt Mieuholme, not farre from it, lye two little rocks, even above water, & a little further of from it two other rockes which are ſomewhat greater, you muſt runne in amidſt the channell throug betwixt them, leaving the 2 ſmalleſt lying on the ſtarboard-ſide, and the two great on the larboard-ſide, that channel lyet throug moſt n. & n. & by e. Being come to the

the end of the Miewholms, you may ſayl up either towards the n.e. behinde the Iſland Maerdow, or weſtwards into the Haven, as is beforeſaid. There goet ſometimes a good tyde out of this Haven, and the weſterly windes doe blow commonly out of this channell betwixt the high lands, therefore he that wil come in here with a weſterly winde, muſt be very careful, & keep up his top ſailes, or els he ſhould lightly not be able to get the haven, but drive out of it againſt his will.

Thwart of the weſt-end of the Iſland Maerdow lyeth a ſuncken Rock under water, whereof you muſt take heed, when you ſaile in thus to the eaſtwards of the Miewholmes. When you are come within the foreſaid weſt-point or the Iſland Maerdow, you may runne up towards the n. e. behind it, & anchor in 12 or 13 fatum, or ſail up towards the n. n. w. into the Sound, and anchor there on the weſt-ſide in 16, 14 or 12 fatum, according as you ſayle farre in. In the going into the Sound, or haven, it is 34 fathom deep.

The Iſland Maerdouw ſtandeth (upon the top of it) full of trees, & round about it are all bare Rockes. On each ſide of th Iſland goeth in a channel. The weſter-gat or channel goeth into the weſtwardes of the Iſland, & the eaſter-gat, to the eaſtwardes of it. For to ſayle into the weſter-gat, you muſt leave the Mewholmes (they are a few Rocks and Iſlands to the weſtwardes of the Iſland of Maerdouwne) on the larboard-ſide, & the Iſland on the ſtarboard-ſide, & run in ſo betwixt them both n. w. & by north but with a ſ. w. wind, you muſt ſaile in northweſt. Upon the northermoſt Mieuwholme ſtandeth a Warder.

The Haven of MAERDOW.



To the eaſtwards of Hamerſound, men doe goe into Kerck-ſound, & 10 a halfe leagues more to the eaſtwards lyeth the haven of Heſnes. Upon the land of Heſneſſe ſtande two Warders: thwart of them it is very ſteepe, but towards little Church it is ſhoaler, to witt, about 30 fathom: the Out-rockes there abouts are all red of coleur.

Kerck-ſound & Heſneſſe.

On the weſtſide of the havens-mout lye a ſuncken Rock under water, called the Koenagle, upon the land ſtand 2 litle maſts, when they come one in the other then you are thwart of the Koenagle. The two foreſaid little Maſts, ſtand upon a gray Holme, leave that on the ſtarboard ſide, and goe ſo ſtill inwards, there it is high land, and the Drommels lye from thence n. n. w. within the land, there you may ſayle throug within the rocks, until you come into Maerdow.

To the eaſtwardes of old Hiſound lyeth Hamer-ſound, lying in n. n. e. On the weſt-ſide of the Havens-mouth lyet a ſuncken Rock which you muſt avoyd, and ſayle cloſe alongſt the Iſland, which lyeth on the eaſt-ſide of the Havens-mouth, & anchor behinde the Iſland right againſt the Warder, in thirty fathom. The eaſter-gat lyeth to the eaſtwards of that Iſland, in and out n. w. and ſ. e. upon the weſtſide lyeth a Rock with a Warder.

Hamer-ſound.

To the eaſtwards of Wolf-ſound lyeth old Hilſound, but betwixt them both, at the point of the weſt-ſide of old Hill-ſound lyeth the Iſland of Blind-ſound, to the eaſtwards of it lye manye greate rockes, wit 2 or 3 Warders upon them.

Blind-ſound.

For to ſaile into the old Hilſound, you muſt runne alongſt to the eaſtwards of Blinſound with the Rocks that lye by it, in by the weſt-land, leaving them on the larboard-ſide, and the foreſayd great or Holmes with the Warders altogether on the ſtarboard-ſide, there are divers faire ſounds, where men may ſaile into and anchor in, without taking hurt. You may edge up to the weſtwards about the poynt, and ſayle throug betwixt the Iſlands, that you can not ſee the Sea.

On the eaſt-ſide of Reperwyck lyeth Wolf-ſound, before it lye two great Iſlands, which ſhew them ſelves in hig gray Rockes, with three or foure Wardes upon them, whereby you may know them. Wolf-ſound.

Wolfſound is a narrow haven for to ſayl into, there ſtand 2 Maſtes upon the weſt-land, where you muſt goe in cloſe by, leaving them on the larboard ſide, and ſome little Rocks on the ſtarboard-ſide, untill that you come within the greate Iſland, where upon the great Warders ſtand, there you may anchor, & lye landlockt for al winds. From thence you may runne forth throug within the Rocks and come out againe into the Sea, by the old Hilſound, or you may run out alſo at the Eaſter-gat of Wolf-ſound, there gat, upon a round hig rock, there you may ſaile out or it where you will.

Three leagues to the eaſtwards of Fleckery lyeth Reperwyk, a broade & Wyde-Sound, lying in north & north & by weſt. For to ſail in there you muſt run in by the land of Wolf-ſound (lying on the eaſt-ſide of this haven) leaving all the Rocks (and alſo where the maſt of Wolf-ſound doe ſtand upon) on the larboard ſide, and all the Rocks of Ranſound on the larboard-ſide, untill that you come to the end, or within in the haven, & then you muſt edge up to the eaſtwards about the poynt, & anchor there, that is a good haven for ſhips that are bound to the weſtwards. Reperwyck.

About three leagues eaſt northeaſt from Holy-ſound and 8 leagues to the eaſtwards of the Nazo, lyeth the haven & Iſland Fleckerye, you may ſayle in at both ſides of the Iſland, as well from the weſtwardes, as from the eaſtwards into the haven of Fleckerye. The weſter-gat lyeth in north northeaſt. When you come of from Holyſound then you ſee open into the Sound, you muſt ſayle alonghſt by the Rockes without Holyſound, untill you come within the Iſland Fleckerye, and edge then weſtwards the land, unrill you Fleckerye. The Weſter-gat of Fleckerye.

you come within the Dieveholme, where the Gallowes ſtandeth upon, and anchor by the weſt-land, 15, 16 or 20 fathom: You muſt bring out there an anchor a head, and make a cable faſt on the Rock upon the land. You may run from thence to the eaſtwards of the Iſland Fleckerye, out againe at the Eaſter-gat, e. n. e. into Sea, and then you muſt leave the little Iſland within the Warders, which lyeth at the eaſt-end of the Iſland Fleckerye, with all the greate Rockes by it on the ſtarboard-ſide, and all the black Holmes on the larboard-ſide.

The Eaſter-gat of Fleckerye goeth in w.n.w. betwixt the Iſland Fleckerye and the poynt of Ranſound. When you come before it, you may ſee open in the Voſſe. For to ſayle in there, you muſt leave all the black rocks thwart of the poynte of Ronſound on the ſtarboard-ſide, and the graye Rockes with the little Iſland, where the Warders ſtand upon, on the larboard-ſide, when as you come then by the forenamed Dievenholme, you muſt runne weſtwards of it unto the Sand-bay, and anchor there, as is beforeſayd.

When you are thwart of the Eaſter-gat of Fleckerye, then there lyeth rigt thwart from you within the land a hig round hill, which men doe call the Boate turned up ſide downe, which lyeth out above all the lands there abouts, and comming from the weſtwards againſt Fleckerye, there ſhewe alſo three hig double lands, which by little & little ſeeme to go to nothing towards the Drommels.

Holy-ſound. Three leagues eaſtwards of Scheerſont lyeth the Iſland called Holyſound, where upon ſtand two great Warders, you muſt ſayle in weſtwards that Iſland alongſt by Geve, which is great hig blacke cliffe which is the marke to know the land by, you muſt leave them in your ſayling in on your larboard-ſide, till you are within, then you may anchor under the foreſayd Iſland, there abouts runneth a great bay in towards the land where you may ſayle in, & where many ſhips doe lade.

A little to the eaſtwards of Sparrels lyeth a haven called Scarſound, or Weſtryſen, for to ſayle in there, you muſt leave Sparrels to the weſtwards on the larboard-ſide, & all the great Holmes or Rocks to the eaſtwards on the ſtarboard-ſide, & run ſo inwards until you come into the haven.

From the Naze (that is the ſouthermoſt poynt of Norwaye on the Nord-Sea) weſtwards, the coaſt lyet ſomewhat alongſt by the land of Leeſt, w. n. w. but to the eaſtwards of it (alongſt without the rockes, untill paſt the Iſland Fleckerye) e. n. e. about 10 leagues. From thence alongſt n. e. unto the Longſound about 16 leagues. This coaſt al alongſt full of hig ſteepe ſtonye hilles, and without it full of maine rockes verie ſtrange to behold, but it hath manie faire deep Havens, with very good anchor ground, where in great abundance of timber and boards laden. The firſt Haven to the eaſtwards off the Naze, is called the Kloof or the Cowe & Calfe, after two hig hommockes, eaſy to be knowne the one ſomewhat greater then the other, which lye within the haven upon the hig land, & are alſo called by the Dutch Shippers. He that will ſayle into this Haven comming from the weſtwardes, ſhall meete with a great Rock ſomewhat to the eaſtwardes of the Naze, called Melyn, where upon is a Warder, being paſt that he ſhall find another Outrock, where upon ſtandeth alſo a Warder, called Sparrels. Betwixt theſe two Outrockes, he muſt runne in to this haven the Kloof. When he commeth a gainſt Sparrels, there lyeth a ſuncken Rock under water, where of he muſt take heed. Somewhat within Sparrels lyeth another Rok in the fareweye, but above water, which he muſt leave on the larboard-ſide. In ſayling in ſo, the haven doth open it ſelf, by little and little, and ſo ſhall come againſt the Kloof: being come within it he muſt edge up to the weſtwards, about the poynt, and anchor there in a ſand-baye, in 15 or 16 fathom, ſo that the two foreſayd hommoks the Cowe & the Calfe ſtande about n. e. from him.

The Kloof. Cowe and Calfe.

Of the Streames on theſe Coaſts.

Along the water on theſe Coaſts of Narway doth Ebbe and flow bey and Bergen as farre as Stad, never the leſſe it keepeth no certaine tyde, in ſometimes of the Jeare and principally in the Springtime there goeth ſuch a ſtrong Streame about weſt alongſt Norway, that a ſhip having a ſ.w. ſtorme ſhall not beable to ſtem it can beate ſayle. How nearer you come under the Land of Norway ſo much the ſtronger goeth the Streame falleth out of the Belt, on againſt the Land from the n. e. and turneth ſo alongſt by the Coaſt of Norway towards the North-Sea. Read more largely of this in the deſcription of the Belt.

How theſe Lands doe lye one from the other, and from other Lands.

From the weſt-end of the Paternoſters to Harmans-head north & by weſt ſomewhat northerly	5 leagues
From Harmans head to Southerwix-holm, north and weſt	6 leagues
From Southerwix holm to Akerſound ſ. e. and by eaſt	6 leagues
From Akerſound to the Siſters, weſt and by north	4 leagues
From the Siſters to Baſt, n. w. and by weſt	5 leagues
From the Red-point to Baſt, ſ. ſ. w.	3 leagues
From Coperwijck to Baſt ſouth and by eaſt	4 leagues
From Soen-water to Farder, ſouth, ſomewhat weſterly	8 leagues
From Baſt to Farder ſouth and by eaſt	5 leagues
From Monck-Iſland, or Roge, to Farder ſ. ſ. w.	5 leagues
From the Siſters to Farder ſ. w. and by weſt	4 leagues
From Farder to Laerwijck w. ſ. w.	4 leagues
From the Iſland Farder to the Longeſound w. ſ. w.	8 leagues
From the Longeſound to the Jofferland ſ. ſ. w.	1 great league
From Jofferland to Maerdow, ſ. w.	8 leagues
From Jofferland to Fleckery ſ. w.	19 leagues
From Eaſtryſen to Maerdow, ſ. ſ. w.	3 leagues
From Maerdow to Wolfſand, or Reperwijck w. ſ. w.	8 leagues
From Maerdow to Blindſound ſ. w.	6 leagues
From Blindſound to Wolfſound ſ. w.	3 leagues
From Wolfſound to Fleckory ſ. w. and by weſt and w. ſ. w.	3 leagues
From Reperwijck or Wolfſound to the Naze w. ſ. w.	11 leagues
From Fleckory to the Naze w. ſ. w.	8 leagues
From Scharefound to the Naze w. ſ. w.	3 leagues
From the Naze to the Holmes in Jutland ſ. e.	19 or 20 leagues
From the Naze to Boevenbergen ſ. e. and by ſouth	24 leagues
From the Naze to Holyland, the courſe is ſ. & by e. & ſ. ſ. e.	67 or 68 lea.
From the Naze to the Eems, ſouth ſomewhat eaſterly	75 or 76 leagues
From the Naze to Bora-riffe ſouth ſomewhat weſterly	83 leagues
From the Naze to the Teſſel or Maers-deep, the courſe is ſouth and by weſt diſtant	93 leagues
From the Naze to Walcheren, ſouth and by weſt	125 or 126 leagues
From the Naze to the Head, or the Strait betwixt Calice & Dover, the courſe is ſ. ſ. w. or ſomewhat more weſterly	143 leagues
From the Naze to the Holmes before Yarmouth ſ. ſ. w. ſomewhat weſterly	104 leagues
From the Naze to Flambroug-head ſ. w.	100 leagues
From the Naze to Scarbroug ſ. w.	99 leagues
From the Naze to the River of New-caſtle, ſ. w. & by weſt ſomewhat weſterly	104 leagues
From the Naze to Liet in Scotland w. ſ. w. ſomewhat weſterly	103 leagues
From the Naze to Boekeneſſe weſt ſomewhat northerly	88 or 89 leagues
From the Naze to Fayerhil, w. n. w.	93 leagues
From the Naze to Hitland the courſe is northweſt and by weſt about	100 or 101 leagues
From the Kloof or the Cow and Calf to the Scaw, the courſe is eaſt & by ſouth, ſomewhat eaſterly	30 leagues
From Fleckory to the Holmes in Jutland, ſ. e. and by ſouth	19 leagues
From Fleckory to the Scaw, eaſt and by ſouth	25 or 26 leagues
From Reperwijcke to the Scaw, eaſt and by ſouth and e. ſ. e.	24 leagues
From Maerdow to the Holmes, the courſe is ſouth	24 leagues
From Maerdow to the Scaw, ſ. e. and by eaſt	20 or 21 leagues

How theſe Lands doe ſhew them ſelves at Sea.

Calfe Cow.



Thus ſheweth the Cow & Calfe, being 4 or 5 leagues, north & by eaſt from you.

Calfe Cow.



Thus ſheweth the Cow & Calfe, when you come from the weſtwards, & are thwart of them.



Thus ſheweth the Naze, being 4 or 5 leagues weſt from you.



Thus ſheweth the land to the eaſtwards of Longſound, when you are about 5 leagues off from the land. & ſayle from the weſtwards alongſt by it.

Thus

Ombon

Kars fioerd

Stierner oe

Fundoe

Stafanger

Dieſholm

Skils fioerd

Boc fiort

Doeſtyck

Lonjenes

Cleyne Bock

Sibrich ſteen

Bacchaven

Wytmas oog

Schute

Klip

Veeſteen

Vſta

DE IED

Rut

Walbert ſche Mids

1 2 3 4 5 6

Duytſche mylen 15 in een graet

1 2 3 4 5 6 7 8

Eng. en Fra. mylen 20 in een graet

Custen van

RWEGEN

Iens en Schuitenes.

Amsterdam.

Themisz. op't water

Lootsman.

W E G E

Kee
Kalf

Melrn

Bisschops
Eilanden

Sierowach

Skeesondt

Seggenhil

Hitteroe

Kopstenen



Thus ſhewet the land of Norway, betwixt the Naze & Fleckory, when you are about 5 leag. off from it.



The land betwixt Fleckory and Maerdow, or the Drommels, ſheweth thus, when you come from the weſtwards, and ſayle alongſt by it.



Thus ſhew the land betwixt Maerdow & Longſound, when you are about Langen 5 lea. without the lant.



Thus ſheweth the land of Northeaſt betwixt Southerwycksholme and Maelſtrand, when you ſaile alongſt by it, being 4 leagues without the land.

The ſixth Demonſtration,

Where in are ſet forth

The Coaſt of Norway, between de Naze and Schuytenes.

ALitle to the weſtwards of the point of the Naze lye two havens, New and Old Silloe or Silleu, ſome doe call theſe one haven (like as alſo men may doe) & diſtinguiſh it into an eaſter & weſter gat or Haven, for men can goe with boat troug within the rocke from the one into the other, but not with great ſhips.

oe. For to ſaile into the Eaſter-gat or New Silloe you muſt take heed of the Biſhops Boeden, which are a few outrocks a little to weſtwards of the point of the Naze, right before the middeſt of the Sound, leave them on the larboard ſide, and ſaile in alongſt by the land of the Naze untill you come ſomewhat within the foreſaid Biſhops Boede, and then you ſhall find there alſo a ſuncken rock, which you muſt avoyd, run about to the northwards of it, and edge then up to the weſtwards behinde the Iſland of New Silloe, and anchor there againſt the white Church within the foreſaid Rock.

For to ſayle into the Weſter-gat or Old Silloe, you muſt run about to the weſtwards of the Out-rocks and Biſhops-Boede, and ſayle right with the ſouth-end of the land of Leeſt; being come by it, run to the eaſtwards alongſt by it, but take heed of ſome Rocks, which lye of from the innermoſt Iſland on the ſtarboard ſide, being the within anchor againſt the Iſland, where you pleaſe.

From the Naze to the Iſland Hittero or Hittereu, the coaſt lyeth alongſt the land of Leeſt w. n. w. 5 leagues. To the ſouthwards or the weſtwards of that Iſland men doe ſaile into the haven of Windfoort, which lyeth in n. e. but to the northwards oft it men doe run into Berg-ſound, e. n. e. in betwixt the Iſland and the land.

In that Iſland is alſo a good haven, which you muſt ſayle into from the northwards, the havens mouth is not very wide when you are come in within it, you may edge up to the eaſtwards or ſouthwards, and anchor there.

Two leagues to the northwards of Hitteroe lyeth a haven called Soggendall, there lyeth a little Iſland before it, within men may anchor, it is a good road for them, which are bound the ſouthwards. Betwixt them both, not farre without the land, lye two Outrocks alonghſt the ſhoare, called Fock-ſtones, the one lyeth a little more to the Seawards then the other.

A league to the northwards off Soggendal lyeth Ekeſound, before it lyeth an Iſland, which you may ſayle into in both ſides of it, the ſouther-gat lyeth in n. e. being come in there, you muſt anchor on the north-ſide of the haven in a bay, there is the beſt road in 8 or 9 fathom, the Norther-gat lyeth into the eaſtwards, being come in there, you may anchor at divers places. Two leagues to the northwards of Ekeſound lyeth a Haven called Sirowach.

For to ſayle in there, comming from the northwards you muſt run in right with the ſouthermoſt ſand-bay untill you come cloſe by the ſhoare, and then the haven doth open it ſelfe, loof up cloſe alongſt by the north ſhoare, then run up by it to the ſouthwards, and avoyd the weſt-poynt, thwart of it lyeth a ſunken Rock 12 foot under water, being there within, let your anchor fall in 7 or 8 fathom, and bringh a cable on the weſt ſhoare, then you ſhall lye landlockt for all winds. This is a good haven for thoſe which are bound to the northwards.

To the northwards of Sierowach lyeth the land the Jedder, which lyeth from Sierowach firſt n. w. and by north two great leagues to poynt Walberd or Mids-Jedder and the north 4 leagues, which is altogether a clean whole coaſt without any dangers or havens, except at the very north-end, from which runneth of a little Riffe n. w. into Sea towards the Veetſtone.

The Veetſtone is a great Rock, lying about two leagues without the land, lying n.n.w. from Mids-Jedder 5 leagues, betwixt them both a great league to the ſouthwards of the Veetſtone lye ſome low blackes, called Rut. When as you ſayle from Mids-Jedder on n. n. w. towards the Veetſtone, then the Veetſtone doth ſhew him ſelve very round, like a Haycock, & ſayling ſo, you migt ligtly within the foreſayd Rocks of Rut, but beingh a little more to Seawards, the Veetſtone ſheweth it ſelf a little longer on the weſt-ſide, then you cannot take hurt of the Rocks of Rut. Veet-ſtone. Rut.

About two leagues n. n. w. from the Veetſtone lyeth an Iſland, where upon ſtandeth a Church called Whitings-eye but n.n.e. from the Veetſtone 4 leagues lyet another Iſland before the Sound of Stavanger called Sybrichſtone. Whitings Eye. Sibrich-ſtone.

If you will ſayle into Stavanger, commingh from the ſouthwards, then ſaile through betwixt the Veetſtone and the foreſayd Rocks of Rut, lyingh on the ſtarboard ſide, but you muſt take very good heed of that little ſtone-riffe, which lyeth off from the north-end of the Jedder: ſayle in untill that the Veetſtone doe lye ſ. w. from you, then goe in n. w. towards the poynt of Tongenes, which is a long point and low land on the ſouth-ſide of the Sound.

When as you ſail now from the Veetſtone towards Tongenes, then you ſhal ſee that Iſland Sibrichſtone before the Sound, which it doth ſhew it ſelf in two parts, leave that on the larboard ſide, and ſayle in by the poynt of Tongenes, but there lyeth a rock of to the northwards from the point, ſayle through betwivt the Rock and the poynt, about eaſt or e. ſ. e. into Doeswycke; when you are within the Caſtle of Doeswycke, there you may anchor. But if you wil ſail in further before the Town of Stavanger, then leave Tonge-nes. Does-wyck. Stavan-ger.

the

the Dieſholm on the ſtarboard-ſide, and ſayle in ſ. e. and ſ. ſ. e. before the Towne, and anchor there where you pleaſe.

But when as you come from the northwards, and will ſayle to Stavanger, then run throug betwixt the Veetſtone and the Whitings-eye, and then goe on n. e. towards Sybrichſtone, and the poynt of Tongenes, and doe further as had been before taught.

Schuytenes. From the Veetſtone to Schuytenes, the courſe is n. n. w. 5 leagues.

But from Schuytenes to Sybrich-ſtone through betwixt Whitings-eye, the courſe is eaſt 5 leagues.

Foure leagues weſt and weſt and by north to Seawards from Schuytenes lye the Rocks called the Outſeers.

Outſeers. Gaeltje Jans Steerman of Staveren, commingh from Schuytenes and being about 2 or 4 leagues from it, hath eaſt upon 18 fathom, and about 18 leagues ſouth and by weſt ſayling, found 38 and 39 fathom, and goying yet 5 leagues further upon the ſame courſe, found 24 and 25 fathom, and yet 9 leagues further ſaylingh ſouth and by weſt, and found 23 fathom water fine ſandy ground, and afterwards 24 and 25 fathum.

Of the Streames on theſe Coaſts.

On the Coaſtes off Norway off from the Naze, untill paſt Bergen unto Stade, the water riſeth and falleth, but keepet no certaine tyde. But from thence towards Dronten, and to the northwards of it, it keepeth tyde accordingh to the Moone, like as in other Places.

How theſe Lands doe lye one from the other, and from the other Lands.

From the Naze to Hitteroe the courſe is w. n. w.	5 and 6 leagues
From Hitteroe to Ekeſound the courſe is n. w.	4 leagues
From Ekeſound to Sierowach the courſe is n. w. and by north	2 leagues
From Sierowach to Mids-Jedder n. w. and by north	2 and a half league
From Mids-Jedder to Rut n. n. w.	4 leagues
From Rut to the Veetſtone north and by weſt	a league and a half
From the Veetſtone to Sybrichſtone n. n. e.	4 leagues
From the Veetſtone to Schuytenes n. n. w.	5 leagues
From Sybrichſtone to Schuytenes through within Whiringhs-eye weſt	5 leagues
From the Naze to Outſeers n. w.	31 leagues

Heights.

Accordingh to the Judgements of the Mapps, the Corner of the Naze lyeth in	57 degrees 40 minutes
Schuytenes lyeth in	58 degrees 36 minutes

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the land of the Jedder, when it is northeaſt 5 leagues from you.



Thus ſheweth the land of the Jedder, when it is e. n. e. 5 or 6 leagues from you.

The ſeventh Demonſtration,

In which are ſet downe

How you may ſayle up into the Liet of Bergen.

BEtwixt Schuyteneſſe & Bock goeth in the Liet of Bergen. Schuyteneſſe is about 4 leagues long, at the ſouth-end lye ſome ſuncken rockes & foule grounds; for to avoyd them comming in out of the Sea, you muſt keep the top of Bock a little without the point of Schuyteneſſe, & then you ſhal goe cleare of them: But if you bring cloſe by or to the point of Schuyteneſſe, & ſaile ſo rigt in for to runne about cloſe by the point of Schuyteneſſe, you ſhall ſurely ſayle upon thoſe foreſaide ſunken Rocks and fowle grounds.

The great Warder. From the ſoud-end of Schuyteneſſe, the Liet lyeth in firſt n. & n. & by w. 2 leagues to the great Warder, which is a road ſo called after four great Warders, which ſtand there thwart of it upon the land of Schuytenes, for the knowledge of this road: there lye commonly the ſhips that tarry for a wind, being bound either to the northwards or to the ſouthwards, there it is very good lying in 5, 6, 7 or 8 fathom, as well for northerly as ſoutherly winds, you may alſo anchor to the nordwards of the Warders about a point in 5, 6, 8, 10 & 12 fatum, there you ſhal lye landlokt for ſoutherly winds.

Coperwycke. A little to the ſouthwardes of the Warders lyeth a Bay, called the Coperwycke, within it is alſo a good haven for them which are bound to the eaſtwards, and will ſet ſayle with a weſt wind: with a eaſterly or northerly wind, you can not well ſhift roads from thence or come out. At the comming into this Baye lyes a ſuncken Rock, called the Coppernaile Coppernaile, upon it ſtandeth alwayes a great Pole, where by you may ſee to avoyd it.

Without at the ſouth-point of Schuytenes on the eaſt-ſide is alſo a little Bay or two, where men may anchor.

Bock-haven. A little to the northwardes of Bock, on the eaſt-ſide of the Liet is alſo a Bay, called Bock-haven, where men may come to anchor.

All theſe roads, as alſo the Coperwycke, are good for thoſe which comming from the ſouthwardes, by reaſon of contrary winds can not get to the great Warders.

A little more ſoutherly then the Coperwycke, on the eaſt-ſide of the Liet to the northwards of the Bock, lyeth in north into the land, a Sound, which ſheweth it ſelf (when you come from the ſouthwardes) much broader then the rigt fareway, ſo that thoſe that are not there very well acquainted ſhould not thinck otherwiſe, but that it was the rigt channell, and ſo ſhould ligtly go up a contrary way. Therefore it is neceſſary & needfull to ſayl cloſe alongſt by Schuytenes, and not Coperwycke, then you ſhall be within the poynt of the foreſayd Sound.

About a great halfe leagues by north the great Warder, lyeth Notou, there ſtandeth a little white Church and ſome houſe, thwart of it in the Bay is alſo good anchoring for northerly winds, and good road for them which are bound to the northwardes. Likewiſe it is good anchoring by north the poynt of Notou, for them which are bound to the ſouthwards. Almoſt at the north-end of Schuyteneſſe, is alſo a road, called Sichſtreame, where is alſo good lying.

At the north-end of Schuyteneſſe lyeth a little Iſland, when you ſayle up or downe the Liet, you can ſee throug betwixt them into Sea. At this Iſland is alſo a good road under a Rocke, or Iſland, called Wybrants-eye, there it is good anchoring for all windes.

Betwixt that foreſayd Iſland and the mayne land, you muſt ſayle throug a narrow ſtrait, which is but a little more then a ſhippes length broad, on the eaſt-ſide where of which is on the ſide of the mayne land, there lyeth a little Rock, or ſuncken Rock, therefore you muſt ſayle cloſe by the weſt-ſide, that is cloſe alongſt by the Iſland for to avoyd the foreſayde Rock.

From

New Liet.

Ruygē holme.

Redē holm.

Soltē mer- fioert.

Reine Knape.

Deepe Sound.

Crab- kerck.

N O O R

Bergen
Slot
Dasholm
Ion Hornes
Karle fioerd
Aslandt
Schanbhuys
Ieltefioerd
Ieltescheer
Reestroom
Lerecknes
Lethoornes
Het
Groot Alsfioerd
groote
Cleyne Alesfioerd
Eylandt
Lobbehet
Cleyne fioerd
Kraeckeren
Reyphola
Dispefond
Reinekuyp
Raetholm
Stormsondt
Soltmerfioerd
Leyesondt
Rayphola
Papesondt

…Caert van
…GEN
…Schuytenes tot aen
…gen.
…dam,
…miss. op t ma:
…Loots man.

W E G H N.

De Bommel

Maes

Oosterl.

't Loyshalm

Slechte

de Bommel

't Bloes

Bommel-haven

Bommel Sant

Bommel-haven

Hollantsche haven

Hunsser haven

Volger reê

van Bommel hooft

Sack

Bremer Hoofden

Bocx haven

't Liet van Bergen

Coper nagel

Schuy

Sieckstroom

Klip

Wtsiers

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche Fra. mylen 20 in graet

10

Schuy-
tenes.

Out-
seers.

The
great
Warder

Coper-
wycke.

Cop-
pernaile

Bock-
haven.

From Wybrants-eye over the Bommel to the Blocks, the courſe is n. n. w. but firſt ſomewhat more weſterly, about 2 leagues, betwixt them both it is on the weſt-ſide all broken land, great and little Iſlands and Rockes. About halfe wayes betwixt them both goeth a Channell unto Sea, where men doe ſayle much in & out, and it is cleane, broad and wide. He that will run out there (comming from the northwardes) may eaſily eſpye it when he is a halfe league paſt the Flocx. On the weſt-ſide lye two little Iſlands or great Rockes, which ſhew much greater then the other rocks, theſe you muſt leave on the larboard-ſide, and run out by them ſ. ſ. w. into the Sea.

He that will runne in here out of the Sea, he ſhal (when he Commeth to the end of Schuyteneſſe) ſee many little Iſlands or rocks, he muſt ſaile paſt al theſe, untill that he get ſigt of thoſe foreſayd two great rocks, and then in by them leavingh them on the ſtarboard-ſide; and ſo he ſhal come ſomewhat to the ſouthwardes of the Blocx or Longholme in to the Liet.

The Blocx are two rockes, lying very neare even with the water, which you muſt leave on the larboard-ſide, in ſailing up, and runne cloſe alongſt by the eaſt ſhoare, throug betwixt the Blocx and Longholm. Longholme lyeth a litle above the Blox, within it is a good Haven, where is good lying. A little to the nordwards of it lye two rockes more, thwart of them lyet a ſuncken rock, which you muſt avoid.

From the Blocx alongſt over the Bommel it is yet two leagues, firſt n. & then n. n. e. all alongſt by the land of Bommel-head, the ſouth-end of this a hig ſteepe point, called Bommel-head to the ſ.w. of it runneth a channell w.ſ.w. into the Sea, called Bommel ſound. This channell is eaſy to be known, comming in out of the Sea. The land of Bommel-head is about 4 leagues long, and the firſt long Iſland to the nordwardes of Schuyteneſſe it is altogether low plaine land, except on the ſouth-end, which is ſo ſteep a point, as if it where hewen rigt of with an Axe. About the middſt between both-ends of this Iſland (on the Sea-ſide) lyeth a very hig round hill, called Sick, of faſhion almoſt like a ſugerloafe or a mans hat, and lyeth farre above all that low land, which you may eaſily ſee at the ends of this Iſland, and alſo further, where by it is very eaſy to beknowne.

For to ſayle into this foreſayd channell out of the Sea, you muſt bring that ſteepe poynt of Bommell-head eaſt northeaſt or ſomewhat more northerly from you, & ſaile then towards it. And then you ſhall leave a great many little Iſlands and rockes on the ſtarboard-ſide, and the foreſayd poynt on the larboard-ſide, and cloſe in about by it to the northwards.

A little about this poynt of Bommel-head, on the inner-ſide lyeth a Haven called Bommel-haven, there lyeth a rok before the mouth of it, and alſo a ſuncken rocke betwixt that rock and the north-poynt of that Haven: He that will go in there, muſt go into the ſouthwards of the rock, in betwixt the ſouth-poynt & the foreſaid rock, leaving the rock on the ſtarboard-ſide of him. So ſoone as men are within the Haven, they muſt let fall their anchor, within it is broade and wide, and men lye there landlokt for al winds.

At the end of the Bommel lyeth Munſter-haven in the land of Bommel-head, on the weſt-ſide of the Liet, even about the point. This is alſo a good haven for them which are bound to the ſoudwards, & by reaſon of contrary winds cannot get further, there ſtandeth a little white Church, thwart of it men anchor in 10 or 12 fathom.

From Munſterhaven to Beulſhaven it is nord an Engliſh mile, there is alſo good anchoring for ſoutherly winds, further it north, ſomewhat eaſterly to Volger-roade, before it lyet a litle Iſland, under it or by it, on the one ſide or other men may ankor for al winds. Men may alſo ſayle round about it, & run in & out at both-ſides of it, if they will.

From Munſter-haven to Bremer-holme the Liet lyeth north, ſomewhat eaſterly about 2 leagues, there the Liet is devide into two parts, to witt, into the Old and the New Liet: The old Liet goet throug to the eaſtwards of Bremer Holme and the land that lyeth to the northwards of it, but the New-land alongſt to the weſtwards of it.

The Olde Liet is not well to be uſed by them, which are not there very well acquainted, alſo great ſhips that draw 12 or 13 foot, may not goe throug there.

Somewhat more then thwart of the middeſt of Bremer-Holme, in the narrow of the Old Liet, lyet a ſhoale where upon is no more then 13 or 14 foote water. A little to the northwards of it on the eaſt ſhoare lyet a bay called Ingeſound, where is good anchoring: there lyeth alſo a Bay on the weſt-ſide, halfe wayes betwixt that foreſayd ſhoale & Bremerholm, where men alſo may anchor.

The New-Liet is broad and deepe enoug. Thwart of Bremer-holme, in the fareway, neareſt the weſt-ſide lyeth a ſuncken rock, where of you muſt take heed. For to avoid it, you muſt marke the Iſland before Volger road. If you keep it ſo that you may ſee it without the north-point of Volger-roade, then you cannot come to neare that ſunken Rok: But if you bring that Iſland behind the foreſaid point, ſo that you cannot ſee it, you ſhall without ſaile, ſaile rigt upon it: you muſt obſerve theſe markes as well in ſayling up as in ſailing off. New Liet.

In the middeſt of the New-Liet lyeth Ruige-Holme, there men lye with ſhippes faſt unto two Rings: the one in upon the Iſland, and the other upon the point to the northwards of it, where they bring out Cables to. Ruyge holme.

From the New-Liet to the point of Redholme, it is n.n.e. halfe league, betwixt them both goeth out the Soltmerfioerd w.ſ.w. into Sea which is a faire broad and large channel. On the ſoud-ſide lye ſome ſunken rock, but if you run out amidſt the channel, you can take no hurt of them. Redholm.

At Sea men doe know this Soltmerfioerd by that foreſaid hig & round hill Sicke, which is very eaſy to be knowne, and lyeth 2 leagues to the ſouthwards of it, about halfe wayes betwixt this Sound & Bommel-ſound. The land on the ſouth-ſide of Soltmerfioerd towards Sick, are ſmal white Rockes, which you muſt leave on the ſtarboard-ſide, and runne in ſo amidſt the channell eaſt northeaſt and then you can take no hurt of thoſe foreſayd ſunken Rockes, lying on the ſouth-ſide of this Cannell. There lyeth a ſuncken rocke at Sea before this Sound on the ſouth-ſide, a little off from the north-point of Land of Bommel-head, with hard winds out of the Sea breaketh vere much upon it, but it lyeth at leaſt 5 or 6 fathom under water. Soltmerfioerd.

When as you come in there, you have Redholm on the larboard-ſide, and you muſt run northeaſt alongſt by it, untill you come about the foreſaid point.

From the point of Redholme to the Narrow it is north, and throug the Narrow north northweſt and north and by weſt at leaſt a halfe league. In this ſtrait it is ſo narrow, that you can but even turne throug it, on the weſt-ſide of the ſtrait lyet a litle Iſland thwart of it is good ankor ground in 13 or 14 fathom.

From the ſtraite to the Reine Knape, the courſe is n.w. & by north 2 leagues: this a little Iſland without trees, cleane round about, which you may ſaile about on both ſides. Reine Knape.

Thwart of Reine Knaep on the eaſt ſhoare lyeth Deepe-ſound, a good haven for them which are bound to the ſoudwards, the mouth of it is narrow, and alſo but 3 fathom deepe, but within it is broad & large, & 20 fathom deepe. Alongſt to the weſtwards of the Reine Knaep, it is broadeſt, to the weſtwards lyeth a point, and by it a little Iſland you may ſayle throug betwixt the point & the little Iſland. From the Reine Knaep to Bagholme, the courſe is nord & by eaſt a great league: Betwixt them bot lye ſome Iſlands & roks, al which you muſt leave lying on the ſtarboard-ſide, there you may at divers places ſayle throug & within theſe Iſlands and rocks, and at laſt come out againe by Bagholme into the Liet, but it is not to be done but for them that are there extraordinary well acquainted. Men migt ligtly get in amongſt theſe Iſlands and rockes, ſo that they ſhould not know how to come out againe. At the eaſt-ſide of Bagholme men may anchor, but there ſhooteth of a litle ledge of rocks from the north-end, where of they muſt take good heed. Deepe Sound.

From Bagholme to Crabkercke it is north about there quarters of a league, this is an indifferent haven for ſouterly windes, but it is a litle, there can lye no more then two or three ſhips. Crabkerck.

From Crabbe-kercke to Bock up Ra, it is north, ſomewhat eaſterly a league, betwixt them both runneth out the Croſſe-ſound, or Cruys-voert w.ſ.w. & ſ.w. & by weſt into Sea. which ſound is very eaſy to beknowne at Sea, by three

hils (almoſt like the Drommels on the eaſt ſide of Norway, but not ſo hig) which lye there abouts within the land which are alſo called by ſome the north Drommels, when they are n. e. or there abouts from you, then you are upon before the Croſſe-ſound. Before the mouth of it lyeth a little Iſland neareſt the ſouth-ſide, from which lye of ſome Rocks to Seawards, the broadeſt & largeſt channell is alongſt to the northwards of it, you may well alſo ſayl throug to the eaſt-wards of the Iſland betwixt it & the land, but there is narrow, yet cleane & cleare without any dangers. When you are within it, you muſt goe in alongſt e. n. e. & n. e. and by eaſt, and ſo ſhall come into the Liet againſt Cruyſnes, a little to the ſouthwards of Bock up Ra.

Bock up Ra is a little Iſland which you may ſayle about on both ſides, alongſt to the weſtwards of it is the common fareway, and alſo deepeſt. When as you ſayle about to the eaſtwards of it, and come to the north-end of Bock, there it is very narrow, and there right in the fareway (ſomewhat nearer the eaſt-ſhoare then Bock) lyeth a ſuncken Rock, there ſtandeth alwayes a pole upon it, for to avoyd it, you muſt leave it on the ſtarboard ſide, and run alongſt to the weſtwards of it. Betwixt this Rock and Bock, it is no deeper then 16 foot. Right to the weſtwards thwart of Bock lyeth another Iſland, under it you may alſo anchor in Bock-lieth. To the weſtwards of this Iſland goeth through the Cobbelieth, which men doe ſayle through with bare winds, or when they muſt run through, becauſe it is broader then on either-ſide of Rock up Ra.

Cobbe lieth.

From Bock to the Wattingh-ſtream it is north a league, there you cannot ſayle amiſſe. If you doe not ſayle againſt the land, for there lye no dangers, except at the weſt-ſhoare lyeth a ſuncken Rock cloſe by the land, where upon remayneth at low water about 10 foot water. Upon the end of Watting-ſtream, the courſe is n. w. about a ſhot of a caſt peece, or a quarter of a league, and then you come thwart of little Alefioerd, which is a haven on the weſt-ſhoare, where is good anchoringh both for north and ſouth wind, under a high round Iſland, where you ſhall lye land-lockt. From thence to the Reeſtone it is north about two leagues, betwixt then both on the weſt-ſhoare lyeth great Alefioerd which is alſo a haven both for northerly & ſoutherly winds, thwart of it the fareway is about 2 musket ſhot broad. The Reeſtone is a rocke under water, lying by the point, where the two hig hills ſtand, which men doe call the Lethoorns. theſe are two hig ſharp hilles, which men may ſee farre of, as they ſaile up of that Liet. Upon the Reeſtone ſtandet allwayes a Pole, that thereby men may avoid it. You may alſo ſail alongſt to the eaſt-wards of it, but to the weſtwardes of it is broadeſt, & the rigt fareway, over againſt it on the weſt ſhoare lyeth Knorwyk, a haven where men may alſo ankor.

Wattingh-ſtream.

Little Alefioerd.

Great Alefioerd.

Reeſtone.

From the Reeſtone to Werckeneſſe, the courſe is e. n. e. about a quarter of a league, and then you leave the Iſland Aſland lying on the larboard ſide to the northwards of you, in it lye alſo two havens where you may alſo goe to anchor, the one called Struys-haven, & the other Schoon-haven. To the weſtwards of Aſland you may ſayle to Jeltefioerd, and run out there about n. w. into Sea.

When you come out of the Sea into Jeltefioerd, then you come into the weſtwards of Aſland againſt the Reeſtone into the Liet.

At the ſouth-point of Aſland lyeth Jelteſchaer, a little round Iſland or Rock, where upon ſtandeth a great Iron ringh, when as men come up the Liet and with calmes are in danger to be driven with the current to the northwards along by Aſland, then they bring with the boat a cable faſt on it. Men may wend round about the foreſaid Rock without any danger.

From Werckeneſſe to Horneſſe, it is eaſt a little diſtance: when yon come by it, you may ſee the Towne of Bergen lye before you, you muſt anchor before it in the Wage, in 11, 12 or 13 fathom.

To the northwards of Aſland lyeth the Iſland Harle, which is about five leagues long, when you come from the northwards, you may runne about it on both ſides, and ſo come into the Wage of Bergen. The Harlefioerd goeth out about north and by weſt, & n. n. w. betwixt Aſland & the land of Harle.

How theſe Lands doe lye one from the other, and from the other Land.

From Schuytenes to Bommels-head, n. n. w. ſomewhat northerly	7 leag.
From Bommels-head to Cruys-oort, n. n. w.	9 leagues
From Cruys-oort to Harle n. n. w.	13 leagues
From Schuytenes to the Outſeers, weſt & weſt & by north	4 leagues
From the Outſeers to Jeltefioerd, or the Wage of Bergen, nord	26 leagues
From Schuytenes to the Fly, ſouth and by eaſt ſoutherly	106 leagues
From Schuytenes to the Teſſel, ſouth and ſouth and by eaſt	112 leagues
From Schuytenes to Walcheren, ſouth	138 leagues
From Schuytenes to the Holms before Yarmouth, the courſe is ſouth & by weſt or ſomewhat more weſterly	113 or 114 leagues
From Schuytenes to Flambroug-head, the courſe is ſouthweſt and by ſouth	104 or 105 leagues
From Schuytenes to Tinmouth, the courſe is ſ. w.	99 leagues
From Schuytenes to Boeckenes, weſt & by ſouth ſoutherly	72 leagues
From the Outſeers to the Fly, the cours is ſ. and by e.	106 or 107 leagues
From the Outſeers to the Rocks Outweers, north and by weſt, ſomewhat northerly	43 leagues
From Jeltefioerd or the Wage of Bergen to Hitland, weſt	63 leagues
From Jeltefioerd, or the Wage of Bergen, to the north-end of Hitland, weſt and weſt and by north	63 leagues
From Schuytenes to Hitland and by north and w. n. w.	73 leagues
From Schuytenes to the north-end of Hitland, weſt northweſt ſomewhat northerly	80 leagues

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Bock, when you are to the ſouthwards of Schuytenes before the Liet.



Thus ſheweth the hill Sick, when you are to the northwards of Schuytenes.

The eighth Demonſtration,

Where in

The Coaſt of Norway betweene Jeltefioerd and the high poynt of Horrel is ſhewed.

FRom Jeltefioerd, or the Wage of Bergen, to Old, the Coaſt lyeth n. n. w. and north & by weſt about 16 leagues, that is all broken land, with many Rocks, where men may ſaile through within them. The Norway Barkes come of from Stade all alongſt throug that broken Land and Rocks, and within the Iſland Harle unto Bergen.

About 4 leagues and a halfe to the ſouthward of Old, lyeth great rouw of Rocks, lyingh 3 or 4 leagues without the other Rocks, thwart of from the ſhoare to Seawards, called the outweers.

Betwixt them and Old lyeth a good Haven, called Southfoort, there lye three Iſlands before it, where men run in betwixt them alongſt into the Haven.

Olde

De C
NOORV
Vertoonde van Berg
van
t Amst
By Iacob Theunisz. op't

NOOR

Sudmers Leen

Lange hoek

Cox hrsot

Vroeden

Breeswater

Eylanden van Flomarck

Swyndse

Noordhoek

t Land van Stadt

Middelhoek

Suydhoek

EN
le hoeck
Lootsman.

W E G E N

Bergen

Rachter
Oosterre
Schelvrick
I. Juffloe
Ickefiaert

Walbres
Lyngsond
Oldesond
Sinsefiaert
Wtweer klippen

Olde sond
Olde
Kirn

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Engelsche Ital mylen 20 in een graet

11

Olde is a hig Rock, a good wayes from the land, & looſe from the other Rocks by the land, buth hath ſome ſmall Rocks lying about it, there lyeth alſo a row of Rocks, a good wayes off from it ſ. w. into the Sea.

About n. w. and n. w. and by north from Olde lye two rowes of Rocks, where of ſome lye above and ſome under water. When as you are either to the northwards or to the ſouthwards of Old, it doth ſhew it ſelfe with a great ſadle, in two hommocks, and going downe round on both ſides, but being thwart off, or weſtwards from it, then it lyeth in one round hill, allmoſt like Coll. You may (comming from the ſouthwards) runne in about the eaſtwards within Old, northeaſt to Oldeſound, and come out againe to the northward of Olde. Foure leagues to the northwardes of Olde-ſound lyeth Kyn, alſo a great rocke, which men may ſayle round about, and ſheweth it ſelfe with two ſharp Hommocks, allmoſt like a Cowes Clawe, or Biſhops Myter.

Betwixt Kyn and Olde goeth a great Sound into the land, upon which lye two Towns, Waldres and Eaſterdal, n. w. & by weſt from Kye lye three or four Rocks, & alſo ſome ſuncken Rocks under water. Southweſt & by weſt about 3 leagues off from it, lye alſo ſome Rockes above, and ſome under water.

Three or four leagues to the northwards of Kyn lyeth Ornael, alſo a great Rock, which ſheweth it ſelf in one great hig round Hill. Three leagues, or three leagues and a halfe to the nordwards of it lyet the ſouth-point of Stade. But Ornaell and Olde lye about north and ſouth, 7 or 8 leagues aſunder.

Betwixt Ornael and the ſouth-point of Stade goeth in a great broad ſound, from whence men may ſayle through within the broken land to the ſouthwards to Bergen. A little within the ſouth-point of Stade is a Bay, where men goe to anchor, thwart of a Sea-beakon, and lye ſheltred for a weſt winde. The land of Stade lyeth from the ſouth-point to the north-point, north northeaſt & ſouth ſouthweſt which is a whole mayn Coaſt but full cloſe alongſt by the ſhoare, with many ſmall Rock, but none that men may ſayle about with in them for to have any ſhelter for to Sea. The Norway Barkes of all places to the northwards of it, yea and all thoſe which come off from the North-Cape, can ſayle all alonghſt the Coaſt of Norway unto Bergen, through within the Rocks, except thwart of this land of Stade, there they muſt runne a Seaboard through the Sea.

Between theſe two foreſaid points are alſo two little havens where men may ryde, but a little or nothing uſed.

To the northwards of Stade the Iſland lyeth with many Iſlands, n. e. to the broad-ſound 9 leagues. About halfe wayes lyeth a little Iſland or Rock, called Swynoe (that is Hogges-Iſland) a league from Land without the other Iſlands of Flowach. When you are cloſe by north-point of Stade, and goe on n. e. you run through within that little Iſland Swynoe, but with a n. e. and by north courſe about a Seaboard of it.

He that is bound to Roemsdall, or into the Sounds of Sudmer, muſt runne into the Broad-ſound, which goeth in at the ends of the Iſlands of Flowach eaſt and eaſt and by ſouth the outhermoſt of theſe Iſlands called Haſſen. When you come to the end of thoſe foreſaid Iſlands, you ſhall ſee eaſt from you about two leagues, a great hig ſhort Iſland, called Goedeu, or of ſome Godſcheſand, and little to the ſouthwards of it, ſowewhat further in a great black Rocke, of faſhion like a Hay-cock, or almoſt like a ſugerloafe, it is called by the ſaylers the Coockes-broad: ſayle in rigt with it, but bring not that foreſayd Rock to or under that Iſland, but keep it clear off without it: for els you ſhould ſurely ſayle upon the foreſayd ſuncken Rockes, which lye under water at the north-ſide of the Broad-ſound.

From the Iſland Goedeu or Godſche-ſand runneth off alſo a little riffe, to the ſouthwards, or towards the ſ. e. from it. When you come by that Iſland runne about that little riffe, in betwixt it and the foreſayd black Rock, and anchor a little within that riffe, under Goedeu, runne not farre within it, for to avoyde a ſuncken Rock, which lyeth ſomewhat further in, not farre from land, there ſtand two little wardes upon the ſhoare, a little within the riffe, for knowledge of the roade.

Behinde, or to the northwards of Goedeu lyeth the little Iſland Geske: upon it ſtandeth a little Church on the ſoud-ſide, before it men may alſo anchor in 8 or 10 fatum cleane ground. Geske.

A little within Goedeu, on the eaſt-ſide of Geske lyeth another Iſlands, greater then Geske, called Walderoe, on both-ſides of the ſoutheaſt-poynt of that Iſland men may anchor in good cleane ground, and lye land-lock for all windes. Walderoe.

From thwart of Geske and Walderoe lyeth a great multitude of Rocks n. w. ſo farre into Sea, that comming a Seaboard by Swynoe with a n. e. courſe, you ſhould bee farre within them.

He that commeth from the northwards may ſaile by weſt alongſt by theſe Rocks to Goedeu, and leave the a foreſayd ſunken Rocks (lying on the North-ſide of the Broade-ſound) on the ſtarboard-ſide of him, and runne in about by the point of Goedeu, as hath been beforeſaid.

You may alſo run into the northwards of Goedeu, to within betwixt Goedeu and Geske, and anchor within Geske, or under Walderoe, but it is not well to be done, but for them which are there very well acquainted.

There lye manye Rocks, ſome above, and ſome nnder water, where of men muſt take heede. In at the Broade-ſounde is the beſt and ſureſt.

For to runne from Walderoe to Roemſdale, go on to the northwards, alongſt by the great Iſlands Luycko, it is in that farewaye, 10, 12, 14, 16 and 18 fathom deepe, but even paſt Luycko runneth a ſtone riffe thwart over the farewaye, on againſt the point of the mayne land, you muſt thereabours edge off from the Iſland on the larboard-ſide, and run indifferent cloſe alongſt by that point of the maine land on the ſtarboard-ſide, and then you runne over the deepeſt of that Stone-riffe, to witt, in three fatum or thereabouts, as ſone as you ſhall be over it, it is againe verye deepe of 10, 20 and preſently an 100 and 200 fatum. Run on ſtill by the land on the ſtarboard ſide, and verie cloſe alonghſt by it, and leave all the Iſlands that lye on the larboard ſide, and ſo you ſhall come unto the River of Roemſdale.

Towards the ſoutheaſt from the foreſaid Iſland Godeu or Godſcheſand goeth a great deepe River into the land, to Sickule, Honigh-pale and other lading places more.

How theſe Lands doe lye one from the other, and from other Lands.

From Jeltefioerd or the Wage of Bergen to the Rocks of Outweers, n. n. w. and north and by weſt about	11 or 12 leagues
From the Outweers-Rok to Old, n. n. w. & n. & by w. betwixt	4 or 5 lea.
From Old to Kyne north and by eaſt and n. n. e.	4 leagues
From Olde to Ornael north and north and by eaſt	7 or 8 leagues
From Ornael to the ſouth-point of Stade, n. n. e.	3 leagues
From the ſouth-point of Stade to the north-point, n. n. e.	8 leagues
From the north-point of Stade to Swyno or Swynooſt, n. e. & by n.	4 lea.
From Swynoe to the outermoſt of Flowach, or the broade ſound, n. e. and by eaſt	4 leagues
From the north-point of Stade to the Iſland Heſſen, or the Broade-ſound northeaſt	8 leagues
From Heſſen to Goedeu, eaſt and eaſt and by ſouth	3 leagues
From Swynoe alongſt without the Roemsdaels-ſchares to Boede, the courſe is n. e. and by north and n. e.	
From Stade to the north-end of Hitland, w. ſ. w.	66 leagues
From Stade to the eaſt-point of Iſland, w. n. w.	200 leagues
From Stade to Greeneland, n. w. about	330 leagues

Of the Tydes & Courſes of the Streames.

Betwixt Bergen and Stade the water riſeth and falleth, but it keepeth no certaine tyde, a ſ. ſ. w. & n. n. e. Moone maketh there moſt full Sea.

Betwixt Stade, Luyckeſound & Boe a ſ. ſ. w. & n. n. e. Moone maketh high Water.

Heights.

The Outweers-Rocks lye in	60 degrees 53 minutes
The Iſland Kyne in	61 degrees 30 minutes
Stade in	26 degrees
Broad-ſound or the Iſland Goedeu in	62 degrees 40 minutes
Luyckſound in	62 degrees 55 minutes

How theſe Lands doe ſhew them ſelves at Sea



The Land about Nortfoert and South-foert, when it lyeth eaſt and ſouth by from you.



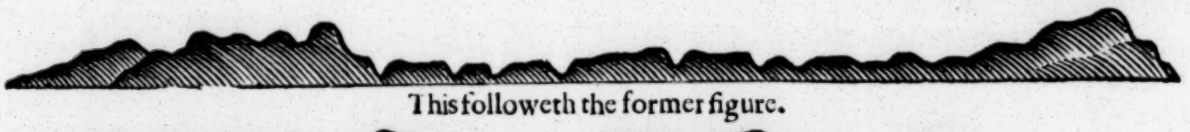
Thus ſheweth the Iſlands Ornael, Kyne and Olde, to the ſouthwards of Stade.

Stade.



When the ſoud-point of Stade lyet n. e. & by n. from you, then it ſheweth with the land from thence ſouthwards within Ornael, Kyne & Olde, like as it is pourtrayed in this & the figure following.

The Land about Olde.



This followeth the former figure.



When the point of Stade lyeth ſ. ſ. e. 8 leagues from you, it ſheweth thus.



When Stade is ſ. ſ. w. from you, and Goedeu eaſt 4 leagues, then the Land betwixt Stade and the Broad-ſound like as is pourtrayed in this and the figure following, and then you are open before the Broad-ſound.



This followeth the former figure unto Stade.



The forme of Iſland Luycko, when it is eaſt and by north from you.



Thus ſheweth the Iſland Goedeu, being eaſt from you.

The ninth Demonſtration,

In which are ſhewed

The LIET of DRONTEN.

Luco. TO the nordwards or nordeaſt-wardes from Geske lye (amongſt a greate manie other roks and little Iſlands) 5 greate Iſlands: The firſt called Luco, which is a hig Iſland, like as alſo the ſecond, betwixt theſe two goeth in a channell about ſouth-eaſt called Luyckſound.

Luyck-ſound. Harn-ſoe. Upon the third called Harnſoe lyeth alſo a hig hill, but it is at both-endes ſomewhat lowe.

Lemſoe The fourth and ſmalleſt called Lemſoe or the love Iſland ſheweth it ſelfe in two or three lowe Hommocks.

Flem-ſeu. The fifth called Flemſeu, on the Iſland, is a great & lowe Iſland, but ſeemeth little to ſee to at Sea, becauſe there lyeth but one hommock upon it (not verie greate) and of faſhion as the roof or cabben of a Hoye, or the weſt-end higheſt within the eaſt-poynt of that Iſland is a good roade in a bight, where men lye landlockt for all winds.

Roofe Iſland. To the northwards or eaſtwards of Flemſeu or Roofe Iſland, goet in a channell called Nogwe-Fioert, lying in eaſt and by ſouth, at which men may runne in to Roemſdale.

Roems dales Schares Without theſe foreſayd Iſlands of from Luco unto Boode, lyeth a great multitude of out rocks, great and ſmall, called the Roemſdales Schares.

Eaſtwards from the Roofe Iſland, or Flemſeu, lyeth (amongſt other rocks and little Iſlands) the Iſland Lever, which men may ſaile about on both-ſides, whether they be bound outwards from Roemſdale to Bereſound or Boe, or inwards from Boe or Bereſound, and wil runne throug the foreſayd Iſlands.

Bereſound is a Haven within ſome rocks even to the ſouthwards or weſtwards of the point Boe, there it is good lying, but not good to come into without a Pilot, or ſome one that is there well acquainted.

Boede is an out-point, with a nec or ſmall point of land, faſt to the maine land, alongſt to the ſouthwards of it men may run in and up, to the ſ. w. to Bereſound, or els go to anchor in a bay on the north-ſide behind Boe, by ſome houſes, where they may lye ſheltred for a weſt winde.

From Boe to Stemneſheſt, the coaſt lyeth about n. e. & by north 2 leagues, betwixt them both about halfwayes lye many ſmall lowe black Outrocks, as if they where ſowne alongſt the ſhoar, called the Stoppels, betwixt them & the maine land you cannot ſayle throug with great ſhipps without great danger. The Norwaye Barckes runne alongſt with in them, & alſo ankor there within, under a roc, which

NOO

v.m.de hoeck

mendael,

Slot Dronten

Spitael

Holm

Badwyck

Burssen

Vrkedael

Rosberg

Lodensyck

Rynselbosken

Schuren

Salbe

Agnes

Agerwyck

HITTEREN

Ebrdandt-

Duynsmeer der Hitteren

Zurdor-Hitteren

Schaarsyre

Noord fiserd

Dromsnes

Schynnes

Flatholm

Glasen

Ilsomendael

…an
…EGEN
…el tot aen Mo:
…epen wort het
…onten.

R W E G E N

Noordhorn

Lange hoeck
voor Harrel

R. van Roemsdael

Flamsche

Leeuwse

Harmsen

I. Vlieter

Vogelsant

Roemsdaelsche
Schaeren

Roemsdaelsche
Schaeren

Noordhorn

Stadlanderveen

Munsterberg

Frankot

Lymuts

Swaggesand

Brems ns

Fockum

I. Simonsholm

Steenwijcks hoofse

I. Cortholm

Ree

Berrysont

Steenvels

Witholm

de Swarte Os

de Vogel

Mieuholms

Grysant

Grysant

de Flesen

Flessand

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche mylen 20 in een graet

12

Stem-
eſheſt.

Black-
Oxe.

White
olme.
unken
ock.

meer-
olm.

The
ogel,

Mew-
olme.

Clap-
ats &
Angel
rgh.

is somewhat greater then the reſt, & lyeth about the midſt of the Stoppels (or somewhat nearer the main land) called the Eartholm.

All the Iſlands betwixt Broad-ſound or Flowach an Boe, belong under Roemſdale.

From Stade to Stemneſheſt (or Stemmeſnes) the courſe is alongſt without the Iſlands n. e. and north about 26 leagues, the land betwixt them both is called the Gouvernement of Roemſdael.

Stemneſheſt. Stemneſheſt is a hig point eaſy to be known, it ſheweth it ſelf (when as you get ſigt of it, comming from the ſouthwardes or the weſtwards) in two Hommocks thwart of it goeth in the Liet with divers entries.

Black-Oxe. About a ſhot off a caſt-peece from the point lyeth a blak round Rock, altogether alone, not very great, called the black Oxe. Betwixt it and the point goet in an entrie, called after the foreſaid rock, alſo the black Oxe, n. e. and by eaſt, it is not verye wyde, & upon the ſhoaleſt 4 or 5 fatum deep at low water, the nearer to Oxe the deeper, and the nearer to the mayn land the ſhoaler water.

A little without the rock, (the black Oxe) lyeth another great rock or Iſland, pale of coulour, called Whiteholme, which you muſt leave (in ſayling) alſo on the larboard-ſide, you cannot faile throug betwixt it and the black Oxe, becauſe from the one to the other it is all full of roks, ſome above and ſome under water.

White holme. Sunken Rock. A litle within or to the end of Whiteholm lyeth a ſunken rock, which you muſt leave alſo on the larboard-ſide.

In calm weather or ſmooth water you cannot well ſee it, but when it doth blowe any thing hard, you may well perceive it by the breakingh of the Sea upon it. On the ſtarboard-ſide within White-holm, lyeth a great multitude of Rocks, as if they where ſowed along the ſhoare, amongſt theſe rocks a little within or to the eaſtwards of the poynt of Smeer-holm. Stemneſheſt lyeth Smeerholme, an Iſland, where men may ryde under, and lye ſheltred for all winds, except with eaſt and n. e. winds, which blowe there in open, with theſe winds you cannoth alſo come out there, neither with ſ. ſ. e. ſ. ſ. w. and ſ. w. winds, you cannot alſo come in there. You muſt ſayle in there from the northwards, behind the Iſland. In the going in (which is not above a cables lengt broad, 8 or 10 fatum deepe) lyeth a little round rock, at hig water, about a fathom above water, by which you may runne about on both ſides.

The Vogel. North northweſt about a halfe league from the Black-Oxe lyeth alſo a greater and broader, but a lower Rock, called the Vogel, wich at hig water lyeth a little above water, but with a ſpring-tyde the Sea runnet alongſt over it. Betwixt it & the Blak-Oxe there ſeemeth to lye in a broade & wyde channell, but betwixt them it is full of ſunken rocks & foule grounds under water: When it is ſmoot water, it is in no wyſe good to runne in there, but in foule weather & wit a growne Sea, & that you cannot doe otherwyſe, you migt runne in there by the breaking of the Sea.

Mew-holme. A great half league n. n. w. from the Vogel lye yet ſome rocks, lying to the eaſtwards, called the Mew-holmes, betwixt them and the foreſayd Rock the Vogell goeth in a broade & large channell, verie cleane without any dangers, which (after the Rock is alſo called the Vogell there men may ſee all that can doe hurt. The marcks for to finde this channell) comming out of the Sea are two hills, verye eaſy to be knowne, which lye from thence eaſt and eaſt and by north within the land. The weſtermoſt is a hille ſomewhat low and round of faſhion, allmoſt like a flatt cap, called Clap-muts & Mangel-bergh. Clapmuts. Thee eaſtermoſt is a hig ſteepe ſharpe Hil, above on the one ſide with a cutt like as ſteppe, called Mangelberg. When theſe are one in the other, then they are about eaſt and by north from you, and then you are alſo rigt open before this channell.

For to ſaile in there, keepe theſe two foreſayd hills one in the other, & ſaile in rigt with them eaſt, and eaſt and by north or (when as you come within the Vogel) ſomewhat more eaſterly, ſo that you have the foreſayd Hills out a head a little on the larboard-ſide, untill that you come by the mayn land, & then e. n. e. alongſt by the ſhoare, (if you be bounde to Dronten) unto the Iſland Edou or Edoe.

About a league within the Vogel lye two Rockes, the weſtermoſt is hig and ſomewhat round, the other is low and alſo round, lyeth to the eaſtwardes from the firſt, towards the land, you ſhall runne with the a foreſayd courſe of eaſt & eaſt & by north of from the Vogel, about a ſhot of a caſt peece alongſt to the ſouthwards of the two Rocks. About halfwayes betwixt them and the Vogell, (but neareſt the two Rocks) lye two ſuncken Rocks, theſe you leave with the ſame courſe alſo on the larbord-ſide you may ſee the Sea alwayes breake upon them, except in very ſmooth Water. Two Sunken Rocks.

You may alſo ſail throug betwixt theſe two foreſaid roks & the Mewholmer, to witt, alonſt to the northwardes of the roks, until you come into the Liet, leave theſe 2 roks on the larboard-ſide, & the Mewholms on the ſtarboard-ſide.

Alongſt to the northwardes of the Mewholmes & theſe two foreſayd Rocks lyeth alſo a channell where men may ſayle throug into the Liet, then you muſt leave theſe two Rockes to the ſouthwards on the ſtarboard-ſide, and ſome other Roks to the nordwards of them on the larboard-ſide, and ſo come alſo into the Liet.

About three quarters of a league within theſe two foreſayd Rocks, lyeth a great ſuncken Rock, rigt in theſe middeſt of the farewaye, which breaketh allwayes, and at low water is uncovered, about which you may ſayl on both-ſides. From this ſunken Rock to Swegge-ſound, the courſe is eaſt & eaſt & by nord a league, but the Vogel or blak Oxe and Swegge-ſound are diſtant about 3 leagues.

Swegge-ſound. Swegge-ſound is a litle haven behind thre great roks, with a little Iſland of an Engliſh mile long on the eaſt-ſide of it, when you ſayle alongſt by it, being but a little off from the ſhoare, you cannot diſcerne this Iſland from the maine land, but it ſeemeth to be all whole land, he that is not there verye well acquainted, cannot perceive that to be an Iſland before that he come cloſe to it, for to runne in behind it. You may ſayle into Sweggeſound either to the eaſtwards of that Iſland, or to the weſtwards of it according as the winde will ſerve. To the weſtwards off Sweggeſound or the three foreſaid rocks, at the weſt-end of the end of the foreſaide Iſland lye a great multitude roks & foul grounds.

For to ſayl into the weſtern channell, you muſt leave them all on the ſtarboard-ſide, & runne in betwixt them & the three foreſaid roks: when you come to the end of theſe tree roks, you muſt luffe up to the ſoudwards about by them towards the n. e. or north & anchor there in 7 or 8 fatum, there you ſhal lye landlokt for al winds, but with a ſtorm out of the weſt the growne Sea can come in rowlingh there throug. You may alſo ſaile in further behind the roks, untill you come in behinde the foreſaid Iſland, in a little narrow Bay, there men doe lye in 2 fatum & a halfe, or 3 fatum, & alſo ſheltred for all windes. In this haven of Swegge-ſound the ſhipps commonly doe lye there to tarrye for the winde. He that is bound to the weſtwards, may runne out to the ſouthwards of the three foreſayd rocks, and he that is bound to the eaſtwards, may ſayle out to the northwardes, throug betwixt the Land and the Iſland, but that channell is verye narrow and not above two fatum deep.

Bremſnes. A halfe league to the eaſtwards of Swegge-ſound lyeth the haven of Bremſnes, a little quarter of a league within it on the ſtarboard-ſide ſtandeth a little Church, with ſome houſes, which you ſhall eſpie behinde a point, when as you are come ſomewhat within, there dwelleth the Governour of Normer Leen. Men where wont to come to anchor there to paye cuſtome, but now the Kings Cuſtomer dwelleth over againſt it in little Foſſen, ſo that now at this preſent, men may eyther goe there, or to little Foſſen for to paye their cuſtome, according as occaſion doth ſerve.

For to anchor before Bremſnes, you muſt looke out for 2 beakons, which ſtand by the Church upon the waterſide, thwart of the innermoſt is the beſt Roade, and alſo the beſt grounde, let your anchor fall there, in 20, 15, 8 or 10 fatum, that is neare by the ſhoare, for there it is verye ſteep riſing ground, and make you faſt with a hawſer to the beakons, there you ſhall lye land-lockt for all winds you may not anchor any where thereabouts, then in the foreſaid place, by reaſon of the great depth, & verye ſteepe grounds.

Little Foſſen or Foſſound. Little Foſſen or Foſſound is a narrow haven, lying to the nordwards, over againſt Bremſnes, betwixt two lands. In theſe two places lye the ſhips commonly to tarryn for the winde, they that are bound to the eaſtwards before Bremſnes

and they are bound to the weſtwardes in little Foſſen. Men may alſo ſayle from Foſſen to the eaſtwards, through betwixt the foreſayde land, and come into Stan Wixſioerd againe in roome into the Liet of Dronten, but it is a verye narrow channell, and not well to be done for them which are not there verye well acquainted.

Fles-ſound. Three Fleſſen. Weſt northweſt from the Haven of Bremſnes goeth a channell through the Rockes called Flasſound, after three round Rocks, called three Fleſſe, which lye in a rowe without the eaſt-ſide of this channell, and thereby is very eaſy to be knowne. A little within the 3 Fleſſes, lyeth a great black flat rok, when you are by or in the Haven ſmouth of Bremſnes, it lyeth w.n.w. or ſomewhat more northerly from you. For to run out from thence at that channell, ſayl right with the a foreſaid black rocks, and runne to the ſouthwards of it cloſe alongſt by it, leavingh it & the Fleſſes on the ſtarboard ſide, (to the northwards of this flat rocks & the Fleſſe it is all full of rocks, ſome above and ſome under water) you ſhall then leave on the larboard ſide of you two other round rocks, which you ſhall ſee lye about a ſhot of a caſt peece eaſt northeaſt or northeaſt and by eaſt one from the other When you are come without the Fleſſes, you ſhall be without all the rocks, but ſomewhat to the weſtwards of them lyeth a great row of rocks lying weſt northweſt a good wayes into Sea, you may runne weſt northweſt alongſt by them unto the end: when you are come without the Fleſſes you may ſet you cours ſomewhat more northerly; for to geth Sea room betimes. In this foreſaid channell there is no danger, that can hurt you, but you may ſee it. In the offing you may know this foreſaid channell, by the foreſayd three Fleſſes.

Freekol Nort-horne. The marckes for to finde Flesſound, comming in out of the ſea, are two hig Hils, the one called Freekol, lying upon an Iſland, towardes the ſ. e. not farre from Bremſnes, the other called Northorne, lying far within the land. Frekol is a hill with two hommoks where of the ſouthermoſt is the ſmalleſt and loweſt. Northorne is a hill much higher, with a ſharp toppe, and lye alwayes white, covered with ſnowe. When this hill and the foreſayd ſouthermoſt Hommock of Freckol ſtand one in the other (then they are ſ. e. and by ſouth from you) and if that you ſayle in right with them, you ſhall without fail far rigt open before Flesſound. It is a channell of a ſhoare inlet, and very commodious, as alſo Grypſound for them which comming from Dronten, Edou, or any other place in the Liet, and before night cannot ſayle to the channels of the black Oxe or Vogel, for to runne through them into Sea.

Hamer ſound. About a quartier of a league to the eaſtwardes of Bremſnes lyeth Stangwyxfioird, a large bround ſound, at the eaſtpoynt lyeth a great many rocks, within lyeth a haven, called Hamerſound, you may not come in there but with a Pilot, except you be there extraordinary well acquainted.

Jorian-wag & Lyn-wach. A quartier of a league within that foreſayd point, on the north ſide of Stangwyxfioird, lye two lade places, Jorianwach & Lynwach, men runne in there to the northwardes, behinde ſome Rocks, but it is alſo Pilots water.

Toeſter Poeſter. Towards the ſ.e. from Jorianwach, men may ſayle farre within the land, into divers ſounds Strangwyxfioird, Schaelwyxfioird, Nordfioird, Walfioird, Wenningfioird, & other more. Upon the land of Jorianwach lyet the mountayne of Toeſter, in two hilles, to the eaſtwardes of it upon the next land lyeth the mountayne of Stadebuye, alſo in two hills, as Toeſter. Theſe hills of Toeſter and Stadebuy, when you come from the weſtwards alongſt the Liet, lye right behinde one the other, and ſeeme then to be more then one hill, being thwart of them in them in the Liet, or a Sea, each ſheweth in two which is together foure very hig hills, and are commonly called together without difference Toeſter Poeſter.

Sool-ſound. Betwixt Toeſter and Stadebuye runneth throug a narrow Sound, into the Northfioird, called Soolſound. To the eaſt of Stadebuye runneth alſo another ſound throug into the Northfioird, called Emmer-ſound, within which on the north-ſide, cloſe by the Northfioird is a lade place, where men lade good Deales.

Emmer ſound. A quarter of a league in the Liet, to the eaſtwards of Emmerſound, runneth in another ſound, at the entrie broade & wide within it divideth it ſelfe into two parts. Sayling in there you muſt leave Eisholme and the Yellowe Iſland on the larboard ſide, and a rockie Iſland, called the flat Iſland, with manye Rocks on the ſtarboard ſide. The Yellow Iſland is not well to be diſcerned from the mayn land, for thoſe which are not there well acquainted, the end of the Northfioird runneth there about behinde it, and maketh it an Iſland. The Norwaybarkes runneth much thereabout behind it. To the ſouthwardes of the flatte Iſland lyeth a Rock or little Iſland, called Flatholme betwixt them both is good anchoring in 10 or 12 fatum landlockt for all winds.

Throug the ſounde men doe runne into Eurſound, a lade-place lying in the Northfioird, there ſtandeth a litle Church on the weſt-ſide of the flatte Iſland. Betwixt the litle Iſland is a good haven, where men may lye in 3,4 and 5 fatum, it is not broade but cleane. To the eaſtwards of this Yellow Iſland lyet the hig land of Dromſnes. From thence eaſtwardes, further up unto the Liet, towards Dronten or Agenes, it is moſt all whole land, and not ſo broken, as to the weſtwards of it.

Thwart of the Rocks of Hammer-ſound (lying on the eaſt-ſide of Strangwyxfioird) lyeth a faire channell, called Grypſound, one of the beſt channells for to come in out of the ſea into the Liet, it is about a quarter of league broade, and goeth in cloſe to the eaſtwardes of the Iſland Grype.

Grype is a little rounde Iſland lying from the Vogel n.e. and by eaſt diſtant about 5 leagues, upon it dwell maniere Fiſhermen, which goe from thence to Sea, to fiſh upon divers bancks, of 40, 50, 70, 80 and 100 fathom, 4, 5, 6, 7, 8 and ſome 10 leagues without the land, which they knowe to finde by marckes on the ſhoare. On the north-ſide of Grype there lye but 2 or 3 Rocks cloſe to the ſhoare, ſome ſaye that there about is anchor ground in 12 fathom. On the ſouth or weſt-ſide, it is full of Rocks, but they lye moſt above water. About halfe wayes betwixt Grype and the three Fleſſes, ſomewhat without all the other Rocks, lyeth a ſuncken Rock a little under water, he that runneth alongſt without theſe Rocks, muſt be mindful thereof.

For to goe into Grypeſound comming in out of the Sea, you muſt bring the hig Mountayn of Toeſter Poeſter e.ſ.e. from you, & ſaile in righ with it, and ſo you ſhall not ſayle to run in ſigt of the Iſland Gryp, which is eaſy to knowe from the other Rocks, by the great manye Fiſhermens-houſes, which ſtane upon it, & upon no other Iſland nor Roks thereabouts, leave that Iſland on the ſtarboard ſide, and goe in firſt e. ſ. e. right with Toeſter, being paſt the Iſland Gryp, bring Toeſter 2 poynts on your larboard bouwe, and goe ſo in ſ.e. you ſhall come into the Liet betwixt Hammerſound & Toeſter. From thence to the little Iſland Edou & about 4 leagues. About three leagues to the weſtwardes of it, or a league to the eaſtwards of Grypſound in the Liet, lyeth alſo a ſuncken rock, almoſt even with the water, and almoſt amidſt the fareway, neareſt the northſide, you may alwayes ſee the Sea breake upon it, leave it on the larboard ſide, and runne to the ſouthwards of it, there it is broadeſt, you may for a neede run alſo to the northwards of it throug betwixt it and the other Rocks, but it is there narrow.

Edou or Edoe is ſomewhat louw plain Iſland, a league long, and very narrow, which is the firſt land out on the larboard ſide, upon the Liet, that men have ſhelter of from the Sea, to the weſtwards of it, there is nothing but broken land, Rocks and little Iſlands, where the growne Sea commet rowling in throug. Not farre from the weſt-ende, upon the ſouth ſide of Edou, ſtandeth a little white Church thwart of it, or a little to the eaſtwards of it, men may anchor in 8, 9 and 10 fathom. The ſhoare is ſteep riſing ground: If men doe come neare it in 4 fathom, they ſhall be preſently faſt, but the grounds is ſoft. When as men come from the weſtwards, and will anchor there, they muſt (comming neare the weſt-end of the Iſland) countinually feele with the leade for the anchor ground, and ſo ſoone as they feele it, let fall their anchor. Thwart of the foreſayd little white Church, or a little to the eaſtwardes of it, ſo that the little Church come to ſtand over the houſes. When as they let fall their anchor in 10 fathom, and wending up towards the land, verye out the Cable, then the ſhippe ſhall come to lye there in ſixe fathome, the Liet is thereabouts a halfe league broade.

Upon the eaſt-end of Edou is alſo a little haven called Kurow,

Kurow, and it is ſo little that there can lye no more then two or three ſhips, there lyeth a little black Rock not farre from the ſhoare, men doe runne in betwixt that little Rock and the Iſland, and anchor betwixt them both, there men lye landlockt for all winds, but the ground there is not cleane.

At the eaſt-end of Edou lyeth another Iſland ſome what long, called Glaſeu. To the eaſtwards of it runneth a great broade Sound into Sea, called Ramsfioird, but it is know of few. With northerly winds there commeth throug a great growne Sea into the Lieth.

To the eaſtwards from Ramfioird lyeth the land of Hitteren, two greate long Iſlands. Norther Hitteren, and Souther Hitteren, together about 7 leagues long, ſo that he that ſayleth up the Liet thwart of them, can not perceive otherwiſe, but that he ſayleth in betwixt two mayne lands. At theſe ſouth-end or weſt-end of Hitteren, which is on the eaſt-ſide of Ramfioird lye two little Iſlands, called Weroy, there you may ſayle in betwixt them, and ancho in good white ſand-ground, you may alſo ſayle throug betwixt the little Iſlands, alongſt into the Liet, and then you leave a ſuncken Rock lying on the ſtarboard-ſide by the ſouthermoſt little Iſland.

From the Iſland Edou to the Highland, or the poynt of Dromſnes it is n. e. and by e. n. e. diſtant about 3 leagues. To the weſtwards of that poynt, to witt, betwixt that poynt and the land to the weſtwardes of it called Schipnes lyeth a haven called Schaerſwycke. In the mouth of this haven about the middeſt of the channell, but ſomewhat nearer Schipnes then Dromſnes, lyeth a ſuncken Rock, which falleth drye at low water, you may runne in about it on the both ſides. A little within the poynt, on the ſouth-ſide ſtandeth a Countriemans-houſe, before which you may anchor in 5,6 or 7 fathom, cleane riſing ground, which you may come neare by your leade. This haven lyeth about a league more to the eaſtwards, then Ramsfioird, on the ſouthſide of the Liet, fith for to come to anchor in, for thoſe which can ſayl no further by day. To the weſtwards of this foreſayd haven Schaerſwycke alongſt the land of Schipnes, lye manye Rocks by the ſhoare, ſome above and ſome under water, therefore you muſt ſomewhat ſhunne the ſouth-ſhoare thereabouts, but the nord-ſhoare alongſt by Hitteren is verye cleane. The Liet is thereabouts a great halfe league broade.

About five leagues to the eaſtwards of Schaerſwycke on the north-ſide of the Liet, lye the two Iſlands of Lexen, to witt, Norther and Souther-Lexen, which are together about a halfe league long. There the Liet lyeth betwixt both eaſt northeaſt, and northeaſt and by eaſt.

In Souther-Lexen is a baye, before which lyeth a round Rok, making it there within a faire haven, called the haven of Lexen, the Beſt-haven of all the Liet. John Geurtſon Boogert of Amſterdam, hath (at this owne charges, for the commoditie of ſhips that come there) cauſed to be made a great Iron ring: men doe anchor either to the eaſtwardes or to the weſtwardes of the foreſaid Rok, where they will in ſix, ſeven or eight fathom, and bringh a hawſer on the foreſayd Ringh, the further men doe runne into the Bight, betwixt the Rocke and the land the ſhoaler it is but all clean and clear ground.

At the Norther-end of Norther-Lexen is alſo a place where is a good anchor ground fith for to make road in.

Over againſt the haven of Lexen lyeth another haven called Moltow, where the ſhips doe oftentimes anchor in the Harveſt or beginning of the Winter, for to ſet ſayle with an eaſt winde, becauſe they can hardly get to ſayle from Lexen with eaſterly winds.

A league to the ſouthwards or to the weſtwards of theſe haven of Lexen and Moltow, on the ſouth-ſhoare, lyeth a little Iſland, whereupon ſtandeth a Warder, called Swanholm which men may ſayle round about, under that little Iſland it is good anchoring (as well for them which are bound to the eaſtwards as to the weſtwards) in 4 or 5 fathom good clean ſand-ground.

The ſouth ſide of the Liet of from Schaerswyke alongſt to Hegwycke, (which is a league & a half, and two leagues by the weſt point of Agenes) is moſt cleane with a litle fowle grounds: but from Hegwyke alongſt to Agenes the coaſt is fowle and Rocky. The north-ſide alongſt by Hitteren, is alſo indifferent cleane, except at the north-end lye ſome Rocks called the Terlingen, which lye ſomewat off to the ſouthwards from the ſhoare into the Liet. A little to the eaſtwards of Hemneſioird, over againſt Hemneſchell (an Orchard upon a high land) there the Liet is at the narroweſt, and no more then a halfe quarter of a league broad. Hemne fioerd.

Hemneſioird lyeth over againſt the North-end of Hitteren, it is a bay where many Sawes doe ſtand, and abundance of good Deales are cut and laden.

To the northwards or eaſtwardes of the Terlingen, at the north-end of Hitteren, in betwixt Hitteren and Lexen, lyeth a haven called Deepſound, the Norway Barcks (comming from the ſouthwards) run in there along behind Lexen to the northwards. Deepſound.

From Lexen to the poynt of Agenes on the ſouth-ſide, or to Euriland on the north-ſide, the Liet lyeth alongſt eaſt northeaſt and northeaſt and by eaſt 3 leagues. Agenes is the northermoſt poynt of the Liet, you muſt goe about by it when you are bound to Dronten. Agenes.

Betwixt Norther-Lexen and Euriland lye two Iſlands, the ſouthermoſt is called Foſſen, the northermoſt Garten, to the ſouthward of Foſſen you may ſayl through alongſt into the Sea, but not without a Pilot. Foſſen. Garten.

For to ſayle from Lexen to Agenes, run alongſt by the north-ſhoare, which is the cleaneſt, the ſouth-ſhoare is fowle. A cables length or a cables length & a halfe to the weſtwards of the poynt Agenes, lyeth a ſuncken Rock not farre from the ſhoare. For to avoid it and more other danger, keepe alongſt by the north-ſhoare (but take heed that you runne not into no Bights or Bayes) ſo longh untill that you can ſee the houſes upon Agenes, then ſayl towards it, and then you ſhall not ſayle within any dangers on the ſouth-ſhoare. On the poynt of Agenes is alſo a great Iron Ring for to moore the ſhipps to there, by it is deeper and ſteepe of going foule ground. For to anchor there you muſt bee very cloſe by the ſhoare before you ſhall finde ground, and then you muſt make a cable faſt on the foreſayd Ringh, cloſe to the ſhoare it is about five a ſixe fathom deep fowle ground.

On the north-ſide of the Liet over againſt the poynt of Agenes, lyeth Euriland, a flat fayre greene land, upon it ſtandeth a little white Church about an Engliſh mile of from the ſhoare within the land, almoſt like the little Church of Edou, thwart of it is good road cleane flat riſing ſand, and clay ground, men doe commonly anchor there thwart of the firſt beakon in ſeven, eight, or nine fathom good clay ground, 16,17 or 18 fathom men lye farre from the ſhoare. Euriland.

With contrary windes, or that men can not come about Agenes, or taken with the night, they doe anchor moſt commonly there.

By Agenes there runneth out alwayes a great ſtrongh current to the weſtwardes, and by reaſon the Lands from thence to the ſouthwarder on both ſides are very high, and the wind (being ſoutherly) falleth there betwixt then both, alwayes ſtrongh to the northwards, men can not (in ſayling up) geth any thingh there with turningh to windewards, but in ſaylingh of they may geth much by the current with turningh to windewards.

A little about the poynt of Agenes on the ſtarboard ſide, is a great Bay called Salva, wherein is good anchor ground, and good lying, but with northerly winds it is very hard to come out there for thoſe that are bound out, or to the weſtwards. Salva.

From Agenes to the poynt of Roobergh, the Liet lyeth ſouth ſoutheaſt about three leagues. About halfe wayes or ſomewhat more on the weſt-ſide lyes another bay, called Lengswycke, where men may have roade. Roberg

Roobergh is a ſomewhat flat poynt, to the eaſtwards or to the northwards about this poynt is good road in ſixe or ſeven fathom. A good wayes from the ſhoare to the weſtwards of the poynt, the Norway Barks doe oftentimes anchor, but the ground there is not cleane, and therefore it is no good road for great ſhips. Roade.

Over

Over againſt Rooberg lye divers Bayes and havens, as Urkedal, Burſen, Bodwycke and other more, where many Deales are cut and laden.

From Rooberg to the little Iſland or Holm or Dronten, the courſe is eaſt three leagues, when you are a little paſt Roobergen, you ſhall ſoone eſpy it againſt the high land to the eaſtwards of Dronten, betwixt them both it is wyde and broad. From the poynt of Roobergh the land lyeth up to the northwards ſo far that at ſome places men can hardly ſee over the water. When you come by the Holm, you may ſaile about within it on both ſides, you muſt bring the Holm to the northwards of you, and anchor to the ſouthwards of it in ſix, ſeven or eight fathom, according as you lye cloſe to it or farre from it, there is cleane clay ground. The Holm and the Elf, or River Dronten lye north and ſouth about a ſhot of a caſt peece aſunder, betwixt them both it is every where good anchor-ground, and depth of 20 and 21 fathom.

About a bow-ſhot, northeaſt from the Holm lye two ſuncken Rockes, which at low water are uncovered. When as they are even covered with the flood, then you may ſaile in over the ſhoaleſt of the Barre into the Elf with a ſhip that draweth 11 foot.

To ſayle into the Elf of Dronten, it is Pilots water, there ſtand commonly two or three maſts for beakons, but there is no certainty of them that men may truſt unto, for they are oftentimes ſhifted: ſometimes they ſtand on the eaſt-ſide, ſometimes on the weſt-ſide, & alſo ſometimes on bots ſides. When you come a ſhips length or two within the beakons you ſhall come to a chindly poynt on the ſtarboard ſide, by which you muſt luf up to the Kay: upon the Barre it falleth with a ſpring tyde allmoſt dry, but within it is deeper.

Of the Streames on theſe Coaſts.

From Stade to Dronten a ſouth and by eaſt and north and by weſt Moon maketh high water, with a ſpring it falleth a fathom and a halfe up and downe, with an ordinary tyde ſcarce a fathom.

The tydes run not there alongſt the land, but the flood falleth thwart on againſt the land, and the ebbe to the contrary thwart from the ſhoare to Seawards.

Courſes and Diſtances.

From Stemnes-heſt to Gryp, n. e. and by eaſt	6 leagues
From Gryp to the Iſlands of Momendall, n. e.	18 leagues
From Gryp to Holyland, n. n. e. and n. e. and by north	27 leagues
From Gryp to Ruſt, north and north and by eaſt	64 leagues
From Gryp to the north-end of Hitland, ſ. w. and by weſt	115 leagues
From Gryp to the ſouth-end of Fero, w. ſ. w.	167 leagues
From Gryp to the eaſt-poynt of Iſland w. and w. and by n.	233 leagues

Of the Heights of theſe Lands.

The Iſlands Witholme and Smeerholme lye in	63 degr. 54 min.
The Iſland Gryp in	64 degrees
The Town Dronten	64 degrees

How theſe Lands doe ſhew them ſelves at Sea.



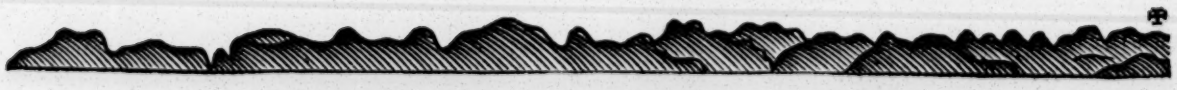
Thus ſheweth the poynt of Stemneſheſt or Heynſt.



Thus ſheweth the Iſlands of Roemſdale, when the middlemoſt of the three higheſt and the weſtermoſt is ſoutheaſt from you about three leagues.



Thus ſheweth the Land between Stemneſheſt and the Broad-ſound, when as you ſayle a ſea-board alongſt by the Roemſdaels Iſlands and Schares.



The two figures belong at the Croſſes one to the other.



The land from Gryp weſtwards or ſouthwards towards Stemneſheſt like theſe two figures here above, when as you ſayle alongſt by it ſeven leagues without the land.

The names of the Sands and Shoals marked with their respective Letters

a	Blyth sand	l	A. Shoale	w	Scarn
b	Holehaven Scarrs	m	Andrews	x	Woolpack
c	Chapman	n	Cutler	y	Spell
d	Middle ground	o	Middle ground	z	Hook
e	Nower and bouy	p	Oraon	A	Middle ground
f	The Warp	q	whitening	B	Horse
g	Middle Middle gro.	r	Kettle bottem	C	Gibman
h	Nears	s	Quernes	D	Girdler
i	Alter	t	White Dike	E	Pan Sands
k	Ridge	u	Colburn	F	Cullemidme

Sand head al. Hope nes
Shelhaven
Holehaven
Rochester
Chattam
Cliff
S. Benfleet
Lee
Isle of Graine
South Shoeberry
Shurchabo
Duine borg
Schapeie
Walcring
Blenow
The Marshes
Colchester
S. Peters sand
Land Ledge
Brickelsey
S. Osith
Crowen water
Crowfleet
Great Holland
Freeston
Walton
The Wallet
The Kings Channell
Goldermans gat
The Sled way
North Foreland
Thel Falls
Gabard
Galloper
Ship wash
Higham
Sandhead al. Hope nes
Shelhaven
Scale

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Engelsche mylen 20 in een graet

KENT.

SURREY.

MIDDLESEX

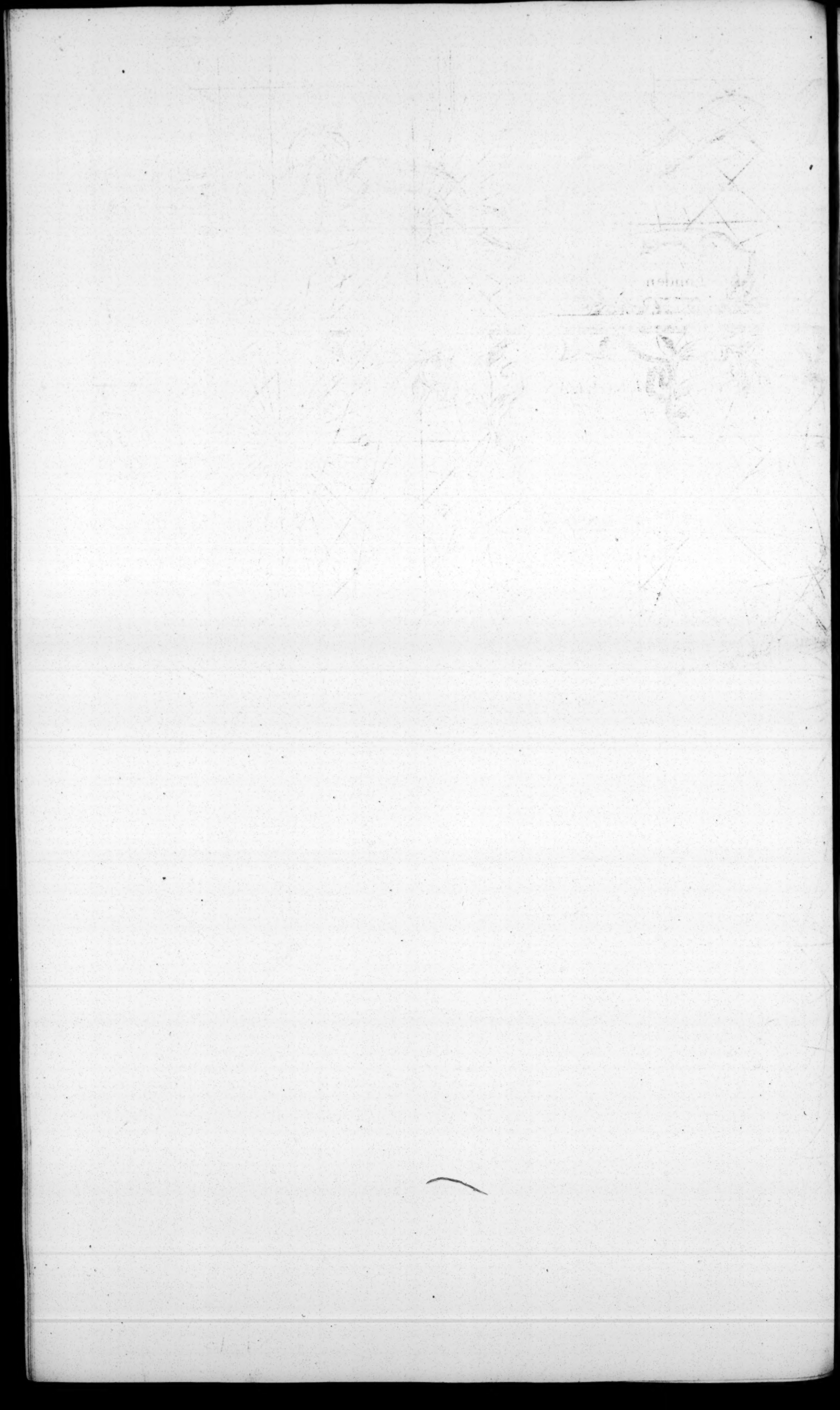
Rivier van Londen

Pascaerte van ENGELANT Vant Voorland tot aen Blakeney water in te sien is de mont vande Teemse. 't Amsterdam. By Iacob Theunisz. opt water inde Lootsman

NORTH SEA

a	the the Pool
d	Limhouse Reach
e	Grenwich Rea
f	Blackwall Rea
g	Bugbyes hole
h	Woolwich Reach
i	Gallions Reach
k	Barking Reach
l	Dagenham Reach
m	Erith Raech
n	The Rands
o	Long Reach
p	S. Clements reach
q	Northfleet hope
r	Gravesand reach
s	Tilbury hope
t	Sanders ness
u	Cockolds point

a	The Barnard
b	Home head
c	Cockle
d	S. Nicholas Gut
e	Caster gat
i	The Ower
k	Bouncb barrel
l	The Ness
q	Corton sand
r	Hemsby sand
s	Middle ground



The tenth Demonſtration,

In Which

The Eaſtſide of Englant, is ſhewed, from the River of London to Welles.

BY two wayes men may ſayle into the river off London, from the ſouthwards alongſt by the north Forland, & from the northwards alongſt by the Naes. If you will ſayle in there from the the ſouthwards, then you muſt firſt ſhun the North Forland, it is there ſhoale a good wayes from the ſhoare, bring the North Forland alſo not more ſoutherly from you then S.w. that you do not run on againſt the north grounds, which lye farre to ſeawards. Commingh by the land, run alongſt by it, but kome not to neere it that you looſe ſigt of the ſpyre of the ſteeple of Margat behind the land, for then you ſhould come to neere it; but if you keepe ſo far from the ſhoare, that you can ſee the foreſayd ſteeple above the high land, or keep it even in your ſight, then you cannot take hurt of the ſouth grounds. Coming thwart of Margat, then you are paſt the foreſayd ſhoals or ſ. ground. Run then boldly towards the ſhoare, and w thin 2 cables lengts alongſt by it, for to avoid the north grounds, which lye farre to the ſ. wards the land. Sayle on ſo w. all alongſt by the ſhoare, untill that the Reculvers (which are 2 ſteeples upon one Church) come one in the other, and then you ſhall run in ſigt of the firſt buye upon the Laſt, which lyeth upon the foreſayd markes of the Reculvers, being by it you can alſo ſee the other buy which lyeth like as the firſt alſo on the north ſide, and over againſt it on the ſouth ſide ſtandeth a beakon, there you muſt ſayle throug betwixt them both, leavingh the buye on the ſtarboard ſide, & the beakon over againſt it on the larboard ſide. From thence you may with litle ſhippes, or ſhippes of litle draugt, but not with ſhippes of great draught, at high water run over the Swallow on Weſtnorthweſt towards Scheppy, for it is there ſhoale water, wit ſhips of great draught you muſt runne through the Fiſhers deep towards Black-tayle. You may alſo runne from Margat with ſmall Schippes alongſt by the ſhoare upon the lead at high water even unto the Scheppy, but in ſayling alongſt there, you muſt caſt your tides well, for the flood falleth very ſtrong into the Swellow, & the ebbe to contrary very ſtrong out.

When you come by Scheppy, runne within two cables lengts alongſt by it, for to avoyd the taile of the Spanjard, untill that you be paſt Quinsbrough, edge then off from the ſouth ſhoare for to avoyd the Noere, which is a ſande that ſhoteth of from the ſouth poynt of the River a good wayes to the eaſtwards, upon the outermoſt-end where of ſtandeth allwayes a beakon, where by you may know it. Run alongſt to the northwards of it, leaving it on the larboard ſide, & alongſt in the middle of the channell in to the ſea-reach for to avoid the grounds, which lye off from the north-ſhoare, goe in ſo alongſt towardes Graveſend.

To ſaile wit ſhippes of great draugts alongſt by the north Forland up in to the Tames, you muſt (when you are paſt the buyes upon the Laſt) ſayle throug the Fiſhers deep, toward Black-tayle, which lyeth from the ſecond buye upon the Laſts, unto the firſt buye in tho Fiſhers deep, n. w. and n. w. and by weſt, which lyeth upon the north-ſide of the ſand, which men doe call the Spanjard thoſe two buyes lye a great wayes one from the other,

Sayling from the buye upon the Laſts it is a great wayes all ſhoale water, ſo that you muſt runne over there with hig water, but comming neare the buye upon the Spanjard, it is by little and little deeper water. He that will ſayle over here, muſt reckon his tydes well, the flood falleth there alongſt towards the ſoudweſt almoſt thwart over the deepe and ebbe to the contrary.

The ſecond buye in the Fiſhers Depe you muſt leave on the ſtarboard ſide, & the buye upon the Spanjaerd on the larboard ſide: being paſt that you come againſt the Blacke-tayle, to the ſouthwards of the Shoe-beakon into the rigt deepe. The eaſt-point of Sheppy ſhall then lye about ſouth from you. From the Sho-beakon the courſe is ſouthweſt to the poynt of Black-taile there runneth of a hooke, which men might (at unawares) ſayl within (comming from the northwards) in 5 or 6 fatom, but if you keep from the ſhoar in 7 fathom, you cannot ſayle within it. From Black-taile to the beakon upon the Noere, the courſe is w.ſ.w. leave it on the larboard ſide, as before is ſayd, and runne in alongſt the River, in the middeſt of the cannell, betwixt both lands unto Gravenſend.

For to ſaile unto the River of London, comming from the northwards, you muſt come neere the coaſt to the northwards of Orfordnes, which is to the northwards of all the ſands, there lye Albrough, Dunwich, Walderſwike, Sowle and Covehit, all betwixt Orfordnes and Leyſtaf. Covehit is a ſharp ſteeple like as alſo Leyſtaffe, but Sowle & Walderſwike, Albrough and Orfordnes are flat ſteeples, Sowle and Dunwich lye both upon the high land, betwixt them both is a vally, therein you may ſee Walderſwike, when you are thwart of it, Dunwich is the beſt to beknown of all theſe foreſaid Places: It hath two flat ſteeples, and on both ſides ſome trees. To the ſouthwards of it lyet Aelbrough, which is alſo very eaſy to beknown, it hath one high flat ſteeple with three Mills, the two ſtand to the northwards, and the third to the ſouthwards of Albrough when you are thwart of it, but ſailing to the ſoutwards, they come at laſt all three to the ſoutwards of it. The land without Albrough, and to the ſouthwards of it is very low flat and chidely land.

For to fail into the River of London from the nort wards Sowle Dunwich. Aelbrough.

Betwixt Albrough & Dunwich about half wayes betwixt them lyeth a Wood, which is at both ends high, and in the middeſt low with a ſaddle; this you ſhal commonly ſee firſt when you fall with the land thereabouts, & is the beſt to beknowne for to know te Coaſt by; the land without it, & to the ſouthwards is very low flat chindely land. About two leagues to the ſouthwards of Albrough lyeth Orfordnes, betwixt them both ſtand alſo two woods of trees, which ſhew them ſelves a farre of like Caſtles or Towers. Orfordnes is a flat ſteeple with a thick or broad Caſtle, which hath alſo a thick flat ſteeple, allmoſt of faſhion licke the ſteeple of Rarop, open above with holes in it like Bellholes.

Orfortnes.

Before Dunwich you may anchor, there is good lying in 8 or 9 fathom, ſomewhat ſoft ground. Before Albrough is the beſt Road of al the coaſt thereabouts in 6 & 7 fathom.

East from Albrough about 2 leagues lyeth Albroughknock, this is a ſand with at low water is not deeper then 7 or 8 foote: you may ſound round about it in 5 fathom, but is not good to come nearer it. With ſea winds you may deſcerne it plainly by the breaking the ſea upon it; but with lawderſy or weſterly winds, & faire weather, the ſea breaket not upon it, hee that runneth thereby to the northwards with in ebb ſhal ſee it commonly ripple very much upon it, like as upon moſt of the Engliſh banks, & not indeed upon the bankes, but againſt them, for upon the ſhoaleſt or middeſt of the banckes is alwayes the ſmootheſt water, like as you finde every where.

Aelbrough-Knock,

When as Albrough is weſt from you, & the two ſteeples of Orfordnes are one in the other, there you ſhall finde Albrough knock. Theſe are ſure marks of that ſand.

The Whiting or Whiting-ſand, is ſomewhat along ſmall ſand lying before Orfordnes, and the chindely land to the ſouthwards of Albrough, and lyeth alongſt the reach, but the ſouth-end lyeth further from land then the north-end, there is at low water above ſix or ſeven foot water upon it. Comming from the northwards, men ſayle commonly to the weſtwards of it, that is through betwixt the land and Whitingh-ſand, towards the Naze. Men may alſo ſayle alongſt to the eaſtwards of it, through betwixt Whitingh-ſand and the eaſtermoſt poynt of the Court or Court-ſand, which ſome doe call the Rib.

Whiting-ſand. The Court.

The north-end of the Whitingh lyeth alongſt cloſe to

the shoare, and lyeth from the steeples of Orfordnes s. e. & by south, it is so exceding stepe and needle to, that you shall have the one east 9, the next east 5 fathom, & then you are no more but a ships length from it, before you can have the lead again you should be upon it. When as you sit with the fore ship against it, it is at the shoare 5 or 6 fathom deep.

Alongst the inner-side, it is also everie where so steepe, that you cannot sounde it, but one the outer side you may runne alongst by it in five fathom upon the lead, untill you come with in the sand.

When as you come from the northwardes and wil sayle through within the Whiting, you must run clouse along by the shoare, and s. w. about by the poynt of the chindle to the southwardes of Aelbrough, untill you come within the north poynt of the Whitinge; when the steeples of Orfordnes come to be northwest and by north from you, then you are right thwart of the north poynt of the Whiting, being within it goe a gaine more southerley, to with, southwest and by south towardes Balsy cliffe.

For to runne in to the eastwards of the Whyting.

If you should fall to the soutwards of Whiting, or els comming from the southwards will sayle in there to the northwardes, then bring the steeples of Orfordnes west-north west or northwest and by west, but for all not more northerly then northwest from you, and sayle so right in until you come by the Chindle strand, then run in alongst by it, as is before said, and then you shall run far enough alongst to the nordwards of the Whiting.

If you wil sail into the eastwards or the southwards of the Whiting, then bring the steeples of Orfordnes n. n. w. or n. w. & by north or n. w. from you, and saile in so rigt with them; until that the wood of trees, that standeth upon the next point tot the southwards of Balsy cliffe, come to Balsy cliff, which shall then stand about w. s. w. from you, keepe that aforesaid wood to the south-side of the cliffe, and saile in bouldly rigt with it, and then you shall runne rigt in the farewaye, in betwixt the Whiting, and the tayle of Courtesand, but if you bring the foresaid trees more then a handspikes length without the cliffe, you shall not saile to runne on against the point of the Courte. That aforesaid wood of trees is verie easy to beknowne, becaus there abouts stand no other trees.

Or bring the steeple of Balsy w. s. w. from you, and saile in so rigt with it, untill you come by Whitingsand, in 5 or 6 fathom, and leade it in so by it upon the leade, untill that you come by Balsy, or that you get deeper water.

When you come neare Balsy, whether you be come in from the northwards or the southwards of Whiting-sand, you must keepe somewhat of from the shoare, because of a litle riffe or smal tayle, that shoteth of from the shoare, thwart of Balsy cliff, which you must avoyd somewhat with shippes of great draugts, there remaineth at low water upon it not more then 2 fathom, you may commonly perceive it well by the rippeling of the tyde.

You may also saile into the soutwards of the Ribbe (that is, the tayle of the Courte or Courte-sand) thus: bring the steeple of Balsy n. n. w. or a litle more northerly from you, and saile in so rigt with it, and so you shall runne into the northwards, or throug the Courte, at a channell of 8 fatom depth, the east-side of this channel is stepe, come no nearer it then 8 fatom, but by the westside you may runne in about by the Cort upon the lead, untill you come whitin the Sands.

Balsy hath a hig flatt steeple, and lyeth somewhat within the sand behind the cliff, when as you come from the nortwards, you may see Balsy to the northwards of the westwards of the cliffe, but you saile it altogether behinde the cliffe, so that at last it commet out againe tho the soutwards of it.

For to sail into Harwich.

If you will saile to Harwich being past Balsy, then bring Balsy to that steep point to the southwards of Balsy where the trees stande upon, keep these markes so standing, and runne so alongst by the shoare, untill that you be over the point of the Cindle, the markes there of are two hig trees within the land, when they are about n. n. w. from you, then they come one in the other with the steeple of Harwich, and then you are rigt over the point of the Cindle, and then you shall gett deeper water, to witt, 4 & 5 fatom or somewhat more against the higest water, runne in then about by the point, the channell lyeth in rigt north but in the midst of the Havens mouth lyes a suncken Rockie and stonie ground, which you must avoid, you may sayle in about it on both sides, by the one shoare or the other, but alongst by the east shoare it is best, being within it, you can not saile amisse, or take hurt, if you do not saile bluntly against the shoare: There you may anchor al over, where you please before the towne in 5, 6 and 7 fatom. You may well also goe further into the Bigt, there it is clean everie where. The farewaye betwixt Orfordnes or Whiting-sand and the Naes lyeth most s. w. & by south, and is 6, 7 or 8 fatum deepe, in turning to windewards, you may runne to the shoare in 5 & 4 fatum, but close to the sands it is deper, to wit, 8, 9 and 10 fatum, the nearer the sands the deeper water.

But for to saile from Balsy to the Naze, you must marke the steeple of Balsy, when it commeth within a capstane barres length neere to the south-end of the Cliffe, then keep them so long untill that the house upon the Naze come over the two fields which lye on against the hig land, or come over a black head upon the sea-side, saile then rigt in with them, untill that the steeple of Harwich come to the northwards from you in the little valley off a red-cliffe, leave then the first markes, keepe the steeple of Harwich in that litle valleye, and goe on s. s. e. untill that the third point of the Naze come without the two other points, so you shall run troug betwixt the Naze & the Court, there remaineth at low water no more then 8, 10 and at some places 12 foot water, therefore it is not good to runne trough here unless that it be a quarter floud or with a shippe of great draugt at halfe floude, there it is verie uneve grounde rockie & stonie. The point of the Naze is verie stonie, foule & uneven, the nearer the shoare thwart of that point the shoaler, but the nearer the sands the deeper.

When that the third point of the Naze commet without the two other points or the other land, and that it doth againe beginne to Deepen off, to wit, 4 or 5 fatum, then goe s. w. somewhat southerley, or s. w. and by south unto the buye upon Longsand. Thwart of the Naze is Longsand verie steepe, so that it cannot be well sounded with the lead by them that are not there verie wel acquainted, but somewhat more to the southwards, you may run alongst by it in 4 fatum and 3 fatum & a halfe, until that you get the buye upon Longsand in sigt of you. The north-shoare to the southwards of the Naze is also flat, you may run alongst by it also upon the lead, without any danger.

The buye upon Long-sand lyeth in 2 fatum and a half at half floud, you must leave it on the larboard side, and the buye upon Spits on the larboard side, which lyeth a litle shoaler, they lye about south & by east, & north & by west a musket shot one from the other. The course betwixt the two buyes is s. s. e. & n. n. w. but you must reckon wel your tyde, whether you run troug there with a floude or with an ebbe. Upon the Spits, betwixt the two buyes it at halfe floud at least 3 fatum & a halfe, or almost 4 fatum in the rigt channel, a litle to the southwards of the buy upon the Spits stand two masts above water of a lost ship, which are good markes. Being over the Spits the course to Whitakers beakon is south southwest.

About halfe wayes betwixt them stand also two mastes more on the same west-side, & over against these masts lyet a middle plate, where upon lyeth a buye on the west-side the fareway is along to the westwards of this middle plate throug betwixt that foresaid buye and the mastes.

To the northwards of that foresaid middle plate goeth out a channell by the south-side of Longsand, which you may sail out & in, called the Kingsdepe. If you come from Whitakers beacon, past the middle-plate, so far that you get sigt of the buyes of Longsant or Spits, goe then boldly e. n. e. & n. e. & by east into sea, or upon the lead alongst by Longsand, but if you should run into sea, to the southwards of the midle-plate, you should with an e. n. e. waye fal whitin the hoke of the mouse. This Kingsdepe is a readie channel, & is used almost by al ships for to run out at.

For to runne in at this channell out of the sea, bring the point of the Naze n. w. from you, and sayle in so with it, untill

untill that you come neare Gomfliet or Long-sand in five fathom, goe in then alongst by it about w. s. w. and s. w. and by west, and keepe the sounding of Long sand; and so you shall not saile to runne in sigt of the buy upon the Spits and the foresayd masts to the southwards of it.

From Whitakers beacon to the Shoe beacon the cours is s. s. w. somwhat westerly, comming thwarte of the Shoebeakon, then lieth the east point of Seppie about south from you. From the Shoebeakon the course is alongst s. w. to the point of Blacktayle, there runneth of a Hooke, which men might sayle within comming from the northwards: But if you keepe from the shoare in 7 fathom, you cannot take hurt of it, but in five fathom you runne within it. The like Hooke is also a little to the southwards of the Shoebeakon which you migt unawares saile within, comming from the southwardes.

From Blacketaile to the beacon upon the Nore, the course is w. s. w. The Nore is a sand, lying from the south-point of the maine land of the river, farre to the eastwardes therefore leave the beacon on the larboard side, and goe on west alongst amidst the channell into the river, betwixt both the lands, as here before hath beene said in the description of the Fishers deepe.

From Aelbrough alongst by Dunwith to Covehit the koast lyeth north and by east somewhat easterly, and south and by west or somewhat westerly 5 leagues: but from Covehit to Leystaf north and south 2 leagues. Aelbrough, Dunwhitch and the sands lying thereabouts, are descript here before.

Betwixt Dunwhitch and Covehit lyeth the haven of Sowle which is a little shoale river, a little within it divideth it self into three parts, upon the northermost arme lyeth Sowle, upon the middlemost Walderswijke, and upon the southermost Dunwitch.

Covehith hath a high sharpe steeple, thwart of it lyeth a banck not far from land, which falleth almost drye at low water, but a half floud may sayle throngh betwixt it and the land in 3 fathom, upon the outer side it is uerie steepe, so that you cannot come nearer it then 9 or 10 fathom. When the steeple of Easton is w. n. w. from you, then you are to the southwards of the banck, and when the steeple of Covehit is s. w. & by west from you, then you are to the northwards of it.

Two leagues to the northwardes of Covehit lyeth Leystaf, and two leagues more to the northwardes of it lyeth Yarmouth. The steeple of Leystaf is a high sharp steeple, and standeth a greate Musket shot within the land Yarmouth. The steeple of Leystaf is a high sharp steeple, and standeth a greate musketh shot within the land from the houses, so that in sayling alongst you may bring the steeple on both sides of the houses. Of from Leystaf begin the banck or Holmes of Yarmouth, untill thwart of Winterton, there go divers channells through them, which men may sayl through, upon divers marks, for these that are there acquainted, you may sayle through within these bancks, of from the Leystaf until past Winterton.

If you will run through from before Leystaf within these bancks, then looke out for the fire beakons which stand by Leystaff, which are 2 little white houses, the one standeth beneath upon the cindle on the sea side, and innermost upon a little hommock, somewhat farther within the land. When you come from the southwards, they shew them selves to the northwards of the towne, but come at last, thwart of it. In the night there is alwayes fired upon them for to sayl in there also by night. Bring these foresayd fire-beakons n. w. and by north, or somewhat more northerly from you & sayle in so right with them either by night or by daye, the Church of Leystaf commeth then to the southwards of the Town over a Countrie house by the water side, when you come against the channell, there it is at low water no more then 3 fathom depth, keep these foresayd fire-beakons one in the other, or bring the innermost rather a little to the north wards of the outermost, for to avoyd a little plate, which lyet on the south-side of the Deep, but the channell is indifferent wide, run untill you come against the strand in 2 fathom and a half or 2 fathom, so neare as you will or can, and go then up northwardes alongst by the shoare, you shall then (having sayleda little to the northwards) meet with a flat, where upon remaineth at low water lesse then 2 fathom depth, with laden ships you must anchor before that flat and stay for high water, it floweth there about 8 foot, up and downe, so sone as you are over the flat it will be 5, 6 & 7 fathom deep, edge then to the shoare, and sayl toward it & then you come before the Brewehouse, there is the roade, where you may anchor in 4, 5 or 6 fathom, from thence northward toward Yarmouth alongst the shoare is all over good anchoring and good ground.

About an English mile or somewhat more to the southwards of the towne Yarmouth, is the haven of Yarmouth, it hat two wooden heads, were you must sayle in betwixt them both against the higest water, when the strongest of the floud is spent, at halfe floud it is dangerous, because of the strong tide, which should ligtly carrie you into the bigt, against the shoare, (against your will) it is also best to run in alongst by the southerhead, there it is depest. At Yarmouth in the roade men doe commonly anchor to the northwards of the haven, right twart of the towne, in 5, 6, 7 or 8 fathom, the nearer you anchor to the sandes the deeper water you shall have, but all good sand and soft grounds.

If you will sayle into the Roade of Yarmouth throug the Holmes, then bring the sharpe little steeple, that standet to the northwards of Yarmouth, within the land, over the broade Castle, or bring the mill to the north side of the towne: keep these marks so standing, & goe in so w. n. w. you shal find in this channell not lesse water then 8 or 9 fathom at half floud, this channell is called S. Nicolas channell: on the northside it is deepest being come in, the roade is rigt before the towne in 5 and 6 fathom.

Thwarte or over against the haven of Yarmouth goeth also a channell throug the Holmes for to sayle in throug there comming from the southwardes then bring the Souton over the north side of the haven; the great tree betwixt Northon and that flat little house or Castle, sayle in rigt with them, and keep these marcks so standing, untill that you be within the Holms, within them lyet a plate on the starboard side, a little to the northwards of the haven, called the Middle ground, you may sayle about it on both sides, on the inner side in 5 fathom, but towards the Holmes, or about to the eastwards of it in 8 and 9 fathom.

From Yarmouth to Winterton, the coast lyet north & by west & n. n. w. two leagues.

If you will sayle from Yarmouth fort throug within the banks to the northwards, sayl along by the land, and keep the sounding oft the shoare in 5, 6 or 7 fathom, untill that you have the two firebeacons (which stand a little to the northwards of Castor) one in the oter, sayl then rigt wit them eyter by day or by nigt (in the nigt there is fired upon them) you shall so run over a flat, throug betwixt 2 buyes, which lye each of them upon a tail of a sand, sayl boldly, in with the foresayd fire-beakons, untill you come againe neare the shoare, in 5 or 6 fathom, being come by the shoare, run then again along by it, & kepe the sounding there of as before, ai alongst untill you com before Winterton.

Thwart of Winterton runnet of a dangerous riff, which is dangerous to sayle about by nigt, if men doe come to near it, which is upon the end so steep, that (in 2 fathom or 2 fathom and a half) you shal not be a ships lengt of from it. But when as you (comming from the southwards) keep your self in 6 or 7 fathom, then cannot sayl so neare to it. To the southwards of that rif upon the land, standet a fire tower, which is verie easy to be knowne, with a fire beakon, and also a little with house when these come one in the other, then you thwart of the point of the riff.

To the northwards of this riff upon the land stand two white fire-beakons, were upon there is fired by nigt for to avoyd this riff. When as you come twart of the poynt, then are these also one in the other, so that these doe serve for twart marks, and the other to the southwards of them for longst marks, for those that will sayle about it from the southwards. Comming from the northwards alongst the shoare in 5 or 6 fathom untill you come by the fire-beakons upon the north-side, you must keep somewhat of from the shoare, before they come one in the other, or els you should run on against the riff. When they are one in the other then they stand s. w. and by west from you, and when as the hig fire-beakon to the southwards of Winterton comet to be s. w. somewat more westerli from you, then you are twart of the point of the riff: you may not also run about far within that riff, for then you should ligtly bee foule of the grounds on the eastwards of it, especially when you come from the northwards for there it is not verie wide betwixt them both.

From Winterton to Haesbroug point, the course lyet n. w. 3 leagues.

Betwixt Haesbroug & the Admirals-house stands a ruinous tower upon the strand. When as you keep it and the steeple of Haesbroug one in the other comming from the northwards, then you run rigt upon the point of the foresaid riffe. Foure leagues without the land lyet Winterton sand, the south-end where of lyet about east & the north-end n.e. from Winterton.

Thwart of Admirals-house, not far from the shoare, lyet also a little plate were no ship can go over, but if you goe in 6 or 7 fathom, you cannot sayle to neare it, you may also runne throug in 2 fathom, betwixt this plate and the land.

From Haesbroug to Cromer, the coast lyet alongst n. w. and by west, & w. n. w. 3 or 4 leagues.

The land lyet from Cromer to Bornom first w. n. w. and west and by north and then west, and west and by south 9 or 10 leagues.

From Cromer to Blakeney it is 2 or 3 leagues. At Blakeney standet a hig steeple, which you may see alongst farre over the land, when it commet to the little steeple, then you have the first buy of the cannell, which lyet at the south-end of the Pole, which is a sand at the west-side of the cannell of Blakeney, go from the first buy to the other & alongst by them until you come within the haven. This a tyde-haven, where men doe lye dry at low water. Four leagues to the westwards of Blakeney lyet Wels, betwixt them both lyet the foresayd shoale, called the Poll and Pyper, there is shoale far of at sea. At the west-end of this shoale, goet in the Deep of Wolfs, the beacons that you must sayle in alongst by stand al alongst by the Pyper. When Hoebrom standet e. s. e. from you, then you are to the westwards of the Pyper, thwart of it is good road in 6 fathom. Wels lyet then s. e. from you and the trees stand then also against the steple, then you may sayle open into the haven of Wels, alongst by the foresayd beakons.

Blakeney.

Poll and Piper.

Wells.

Of the depths & shoales about these Places, and in what depths men may see the land.

Five or six leagues n. & n. n. e. from the north Forland or from Margat lyet a bank, called Kentish-knock, upon it is 3 fathom belowe.

Five leagues n. e. from this bank it is 20 fathom deep.

Northeast & by north from the north Forland 9 or 10 leagues, & about east from the Naze, 8 leagues in to the sea, lyet a banck called the Galloper, of 5, 6 and 7 fathom depth.

The westrocks is a stonie ground, lying between the Court & Longsand, where upon is no more then 2 fathom water at a halfe floud.

Without that sand or Harwitch 5 leagues from the Naze, it is 20 and 22 fathom deepe, being there you may see the land.

Thwart of Orfordnes you may see the land from below, in 22 fathom.

Five or six leagues without Leystafte and Yarmouth s. e. & east into Sea it is 27 and 28 fathom deep, there you may see the land.

Four leagues east & by south from land, without the Holmes of Yarmout lyet a banck, called the Newsand, which is not deeper then 2 fathom.

East northeast at least 7 leagues from land thwart of Yarmouth, it is 15 fathom, the ground red grosse sand with little round stones, being there you may even see the land from below.

Twart of Winterton and Cromer 7 or 8 leagues from the land, it is 18 & 19 fathom deep, and there you may see the land.

Winterton sand lyet 4 or 5 leagues from land n. e. from Winterton.

What Moon maketh hig Water at the Places.

At the north Forland a north and south Moone maket hig water.
Within the Thames a south and by east Moone.
Before the Thames, at Harwitch and Orfordnes a s. s. e. Moone.
At Leystaff and Yarmouth a s. s. e. Moon maket hig water.
Without the bancks of Yarmouth, and before Cromer, a s. e. Moon maket full Sea.

Betwixt the bancks of Harwitch & the Holmes of Yarmouth the flood falleth south, and the ebbe north.

Thwart of the bancks of Winterton and Cromer the flood falleth s. s. e. & the ebbe n. n. w.

Of the Tydes and Courses of the Streames.

From the north Forland the flood fallet to the Recolvers, and over the Barkes w. s. w. and by south.

Without about Good win towards Kentis-knock, the flood fallet north & by west & n. n. w. there commet the floud also against it from the northwards, and meet one another by the Galloper, with very great rippeling and noyse, (where of this banck is also called the Galloper) and falleth to the westwards into the sands and channels, and also to the eastwards towards Flanders.

Betwixt the North Forland and Orfordnesse the streame fallet without the sands south and by east, and s. s. e.

When you are to the northwards of the Galloper, then you can reckon no ebbe, then that which runneth alongst England to the northwards, the Streames fall there alonghst the coasts. To the southwards of the Galloper, the Ebbe goet to the contrary to the southwards, and the Floud to the northwards.

Courses and Distances.

From the nord Forland to the nord-end of the Goodwin and by east	the course is south one great league
From the north Forland to Kentish Knok n. e. & by n. & n. n. e.	4 or 5 lea.
From thence to the Orfordnesse north	11 leagues
From the north Forland to the Galloper n. e. and by north	9 leagues
From the Gallopes to Orfordnes n. n. w.	9 leagues
From Orfordnes to the Nase s. w.	8 leagues
From Orfordnes or Abre to Leytstaff south and north	8 or 9 leagues
From Abre to Abreknock e. s. e.	one great league
From Leytstaff to Yarmouth within throug the banks south	2 or 3 leagues
From the north Forland to the Wielings, the course is east somewhat northerly about	27 leagues
From the north Forland to the Mase, the course is e. n. e. or somewhat more easterly about	31 leagues
From the north Forland to the Tessel or Maers-diep n. e. somewhat westerly	47 leagues
From the Naze or Harwitch to the Mase east	31 leagues
From Orfordnes to Tessel e. n. e.	37 leagues
From Yarmouth or Leystaff to Walcheren or Wielings s. e. and s. e. and by south	52 leagues
From the poynt of Cromer or Schiel, to the Tessel, the course is east	40 leagues

Of the Heights of these Lands.

The north Forland lyeth in	51 degrees 30 minutes
Orfordnes lyeth in	52 degrees 14 minutes
Yarmouth lyeth in	52 degrees 48 minutes

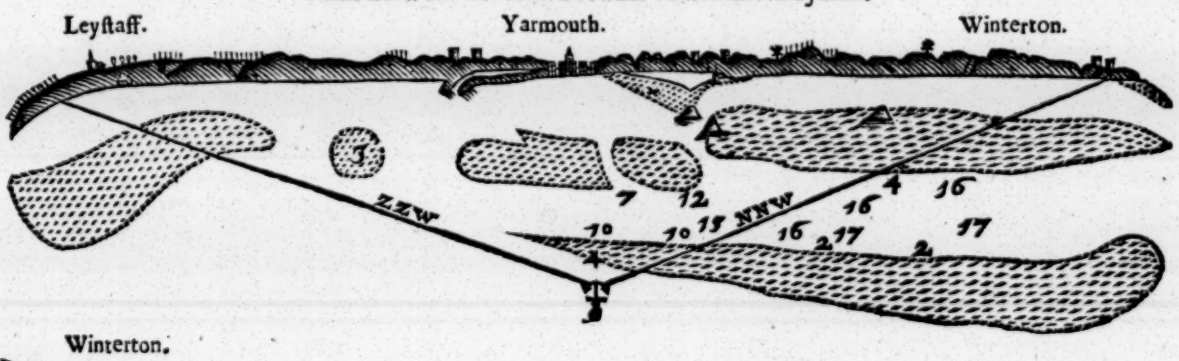
How these Lands doe shew them selves at Sea

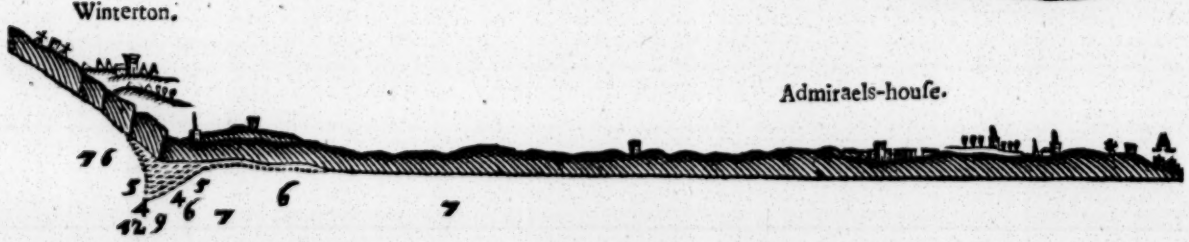


Thus sheweth the coast of Engeland betwixt Orfordnes and Sowle haven.

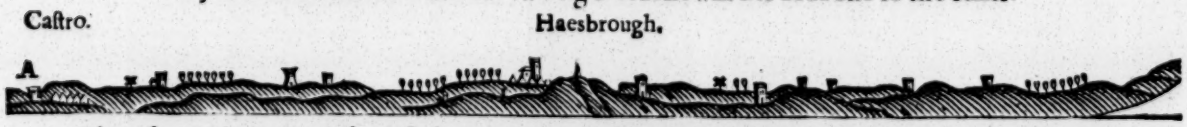


Thus sheweth the land betwixt Sowle and Leystaff.

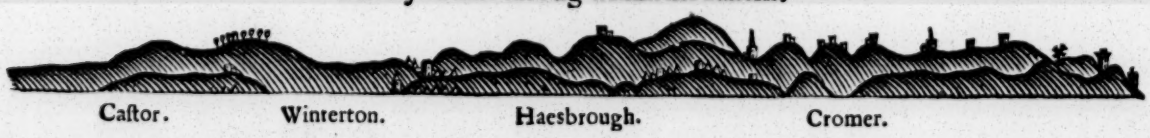




The land to the northwards of Winterton, untill past Haesbrough sheweth when you saile alongst by it, as is demonstrated in these two figures followin the A A one to the other.



Thus sheweth the land alongst the north coast of Engeland, betwixt Yarmouth and Cromer, when you saile throug within the bancks.



The eleventh Demonstration,

Where in are set forth

The coast of England & Scotland, betwene Welles & the Island Coket.

Bornum.

BEtwixt Wels & Bornum lyeth a banck. You may ride under it in 5 or 6 fathum, at half flood there is upon it no more then two fathum water.

He that will sayle into Bornum, must goe in at hig water, & must bring the steeple against the Blackhouse, & saile so in by the beakons, leaving them on the larboard-side. These are all tyde-havens.

From Bornum to Chappel, the course w. s. w. 2 leagues, to the northwards it lyet the Sonck, which is sand that falleth dry at low water. You may saile about it on both sides of the Sonck unto Lin.

For to sayle into the easter channell of Lin, then sayle about to the eastwards of the Sonck, and bring that wood of

de Cust van

ENGELAND

tusschen Welles en 't Eyland Cogge

't Amsterdam

by Jacobus en Casparus Lootsman op 't water inde Lootsman.

Lint

Bolton

Batterwyck

Wrangel

Suttesham

Sutsea

Capelle

Sonck

Bornum

Flacts

Geps

de Welle

Engemels

Salfleet

Grimsby

Stellingborrough

Skats

Skeer Ns

Gonsby

Hul

de Humber R.

Dreasfull

Kelsey

Skeslung

Dalmington

Holme

Paul

Cayathorp

Doesbyn

Ysington

Brillington

Flamborg

Flamborger hooft

Fyley crake

Orrey

Lemmon

De Welle

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng en Fra mylen 20 in een graet

The RIVER OF Tyne.

De REVIER DE Tyne.

NEW-CASTLE

Heaton

Walker

Bicar

Denis hole

S. Lenitius

Leaden hook

Hebburn

Black scarth

Half way tree

Larro

Tinmouth Castle

Tinmouth Towne

East Chirton

Spanish wyrk

High light

Sparrow hawk

Tinmouth barre

North Sheelds

Middens

Northend

South Sheelds

The names of the sands in the River of Tyne.

a	Town Shore	h	Larro middle ground
b	Riddalls shore	i	Larro sand
c	Ballast shore	k	Dirwick sand
d	Bill shore	l	Coble deane
e	Pans sand	m	Ward sand
f	South road sand	n	Bull sand
g	North road sand	o	Muscle scalp

English miles 60 to a degree

Dutch miles 15 to a degree

DVRHAM

Gates head

New Castle

S. Lenitins

Halfe way tree

Larro

South Sheelds

North Sheelds

Tinmouth Towne

Coket of Cogge cr.

Shocton

Vierhouden

Lyose

Root cliff

Whitby

3 Rocks

Sandsyant

Tars

Lyne R.

Ble

Eaſter channel of Lin.

of trees, over the poynt of Sitſem of Suytſon, and Chappell eaſt from you, then goe in ſoutheaſt and by ſouth and you ſhall find the firſt buye, then in ſouth and by weſt and ſouth ſouthweſt and by little more weſterly; untill you come about the poynt, there the buyes and beakons ſhall ſhew you the way.

Weſter-channel of Lin.

When you come about the poynt, then you may runne through the ſands, into the norther channell, and ſayle out againe by the ſame into ſea, by the buyes and markes that are thereof. This norther channell lyeth into ſea n. e. and n. e. and by eaſt, and is very well buyed and beakoned.

You may alſo ſayle into the weſtwards of the Sonck, of witt, ſouth and by eaſt in alongſt by it and ſo runne to the firſt buye, and then from the buye alongſt by the beakons, unto Lin before the towne. When you come from the eaſtwards, you may well run throug within the Sonck, alongſt by the land, cloſe alongſt by Chappell, and in ſouth and by weſt unto the foreſaid firſt buye.

Boſton-deepe.

For to ſayle from Cromer or Blackeney to Boſtondeep you muſt goe on w. and by n. untill you come by the land betwixt the Hommer and Lagerneſſe. From the Soncke lyeth a long banck, called the Flats, north into ſea a league which at low water falleth dry at diveis places. You run with the foreſayd weſt and by north courſe, (when you are by Cromer or Blackeney a little without the land) alongſt without, or to the northwards of this banck at hig water, you may well goe over it, the ground on the eaſt-ſide goeth up flat and playne, run boldly to it without feare, untill you come in 4 or 3 fathom, hee that uſeth his lead can take no hurt of it, but on the innerſide, that is on the weſt-ſide, it is very ſteepe, ſo ſoone as you be over the ſhoaleſt, you ſhall get ſuddenly deepe water, & good ſand ground, under it, or within it is good riding for eaſterly winds.

The Flats.

For to fail into Boſton deep.

For to ſayle into Boſton-deepe, throug within the Knok or Elle-knock, you muſt keepe the ſounding of the ſhoare in 4 or 5 fathom, ſo long untill that the point of Lagerneſſe be w. n. w. from you. Betwixt the ſhoare and Elle-knock remayneth at low water, 5 fathom in the middeſt of the channell, but Elle-knock falleth dry at low water. When as Lagerneſſe is w. n. w. from you, then goe on ſ. e. throug betwixt Elle-knock & the ſhoale, (which ſhooteth of from the ſhoare to the weſtwards of Lagerneſſe) untill that you get againe depth of 6 or 7 fathom in this goin over remayneth at low water no more then 2 fathom, but it floweth there about 3 fathom up & downe. Being over it, then goe on ſ. w. alongſt betwixt Longſand and the ſhoale, which lyeth of from the, it is deepe betwixt them both 9 & 10 fathom, you may ſound both-ſides (as well the ſhoale which lyeth of from the land, as Longſand) in 5 fathom, but the flats is ſomewhat ſteeper then Longſand.

Elle-knock.

Long-ſand.

For to ſaile without Elle-knok into Boſtons-deepe, commings (as is beforeſayd) to the weſt-land, you muſt looke out for the two ſteeples of Ingoldmilles, ſtanding ſomewhat to the northwards of Lagerneſſe, bring them one in the other, and then they ſhall ſtand about n. n. w. from you, keepe them one in the other, and goe on ſ. ſ. e. untill that the trees upon the point bee by weſt Lagerneſſe, come without the point of Lagerneſſe, and then you runne throug betwixt Elle-knock and Dogſhead, that is a ſhoale without Elle-knock when the foreſaid trees come a handſpikes length paſt, or to the eaſtwards of the poynt of Lagerneſſe, then goe on ſ. w. and then you runne rigt into the deepe, betwixt Elle-knock and Longſand, and ſo you ſhal finde betwixt Elleknock, and the point of Longſand 5 fathom depth, being paſt Elle-knock, it wil be 8, 9 and 10 fathom deep.

Ingold-mils.

Dogs-head.

If you will ſaile out of the ſea into Boſton deepe, and not alongſt by the land, as is beforeſaid, then bring the foreſaid trees a handſpikes lengt withouth the point of Lagerneſſe, which ſhall then ſtand from you about w. ſ. w. ſaile in ſo rigt with them untill that the hig land within Lagerneſſe or Winfleet begin to come even without the point of Lagerneſſe, which ſhal then be from you ſomewhat more northerly then weſt, then you are within the poynt of Longſand. Or elſe there ſtand three little houſes on the ſea ſide, about halfe wayes betwixt Lagerneſſe, and Ingoldmils, when they come to be n. w. from you, and thoſe foreſaid trees without the point, then you are alſo within the point of Longſand, goe in then ſouthweſt betwixt Elle-knock and Longſand, as foreſaid. A little paſt Lagerneſſe lyeth a ſhoale or plate about the middeſt in the fare way, but nearer Longſand when the trees upon the point to the ſoudwards of Winfleet come in the ſecond valley of the hig land of Winfleet, then you are rigt twart of this ſhoale, edge therefor to one ſide or other, rather towards the ſhoale, there is wideſt keepe boldly the ſounding of the ſhoale, and run ſouthweſt alongſt by it, untill that the ſteeple of Boſton come over the ſteeple of Butterwyk, that is alſo a flat ſteeple but ſmaller then that of Boſton ſtanding in wood of trees, thwart of in runneth the ſhoale ſomewhat of with a poynt, being paſt it, goe on weſt ſouthweſt all alongſt by the foreſayd ſhowld, untill that the great ſteeple of Boſton come over the ſecond mill, there is good anchoring by the weſt ſhoare in 5 fathom at low water. He that commeth there at low water, muſt anchor and ſtay for the tyde untill halfe floud, before that you may not ſail further in from thence, and them and then you ſhall not alſo find more then 2 fathom upon the ſhoaleſt.

Butter-wycke.

From thence the Deep lyeth in alongſt by the beakons about ſouth to the third beakon, being paſt that weſt ſouthweſt and then by little and little, more weſterly and northerly, but run all alongſt by the beakons, leaving them on the ſtarboard ſide, at laſt on north into the River.

Upon the point of the river ſtandeth a houſe which is a ſheephouſe, before that you come by it, ſeemeth as if there were no opening, by reaſon that is al even green land, run in by it, all alongſt by the land, being paſt it, the River doth open it ſelf. Being come within the points you muſt run in betwixt two dikes, a league up untill you come before the towne, in the river it is at half floud everie where deep enough. When as that you come a little within the houſes of the towne on the larboard ſide, there you muſt let fall your anchor and ſtay untill that the water being to fall, then you ſhal have floud enoug for to drive to the Kay, there you make faſt with one cable, it dot not begin to bee ebbe there, before that the water be fallem 3 foot.

An eaſt and weſt Moone maketh in Boſton deepe the higheſt water, but before the towne an eaſt and by ſouth and e. ſ. e. Moone. He that commeth from Boſton, and will ſaile out at the deep with a hig water, let him look out for the foreſaid hig land within Lagernes, when that commeth behinde the point of Lagernes, then he may boldly ſet his courſe whether he deſireth to be, either to the eaſtwards, northeaſtwards, or northwards, there is nothing then that can him.

From Lagerneſſe to the Hommer it is about 7 leagues, moſt north, betwixt them both, about a league to the ſouthwards of the Hommer lyeth a place called Saltfleed haven a little to the norſhwards of a ſharpe ſteeple called Wilgrip. Thwart of that foreſayd Saltfleet haven, about an Engliſh mile from the ſhoare lyeth a banck or Sandplate, not verie great, which at low water falleth almoſt drye, you muſt runne about without it, and leave it lying towards the land from you, but yet for need you may alſo ſayl through within it.

Plate by Saltfleet haven.

For to ſayle into the Humber comming from the northwards, you muſt ſayle alongſt by the ſhoare, and runne about by the north-point, but comming by the point you muſt keepe ſomewhat of from the ſhoare in 4 or 5 fathom for to avoyd a little tayle, which lyeth of from the point, being about it, runne to the little Iſland, which lyeth a little by weſt that foreſaid north point.

For to fail into the Humber.

If comming from the ſouthwards you deſire to ſayle to the Humber, then bring the Pawle Steeple (which is a hig ſharpe ſteeple ſtanding on the north-ſide of the Humber) a little by ſouth the north-poynt of the Humber, or over that foreſayd little Iſland, and ſayle ſo rigt in with it, untill that you come by that little Iſland, being come by it, leave it on the ſtarboard-ſide, and run in cloſe by it, for to avoyd a great Sand, called the Bull, which lyeth of from the ſouth ſhoare, almoſt unto that little Iſland. When that you come within that little Iſland, then bring the two beakons (which ſtand upon that little Iſland) one in the other, keepe them ſo ſtanding, and ſayle ſo on to the weſtwards towards Grimsby, you leave the Buye upon the Bull lying

Road before Grimsby.

then on the larboard ſide, and run along to the northwards of it: In this fareway it is 7 and 8 fathom deepe. You may not come neere the Bull then in 6 fathom. Before Grimſby you may anchor in three or four fathome at lowe water, it floweth there at leaſt three fathom up and down, a weſt ſouthweſt & eaſt northeaſt Mone maketh before the Humber the higheſt water. Within the foreſayd Iſland at the north poynt of the Humber, you may anchor in 3 or 4 fathom: There lye commonly ſhips that are bound out, & tarrie for the Wind.

From Grimsby in alongſt to Hull, the courſe is w. n. w. to the end of the Banck or ballaſt plate, which you muſt leave lying on the north ſide. On the ſouth ſide lyeth alſo a litle plate, there ſtandeth commonly a Beakon upon it, that you muſt leave on the larboard ſide, and run along to the nordwards of it, being paſt it, you may run alongſt by the ſouth ſhoare in 3 fathom. The fareway there is 4, 5 and 6, and thwart of the foreſayd Beakon 8 and 10 fatum. When you come to the end of the Bancke, you muſt edge up to the Weſtwards about by the point on the ſouth ſide, but there runneth of a Flat which you muſt avoid. Being a little about that point you ſhall ſee the Towne af Hull, lye before you, there you may anchor before it in 6, 7 or 8 fathom: An eaſt and weſt Moon maketh full Sea before Hull. He that will anchor upon the ballaſt-plate, let him bring the flat ſteeple which ſtandeth a little to the northwards or the eaſtwards of Hull to the high poynt of Paul, and keepe them ſo ſtanding untill that he come to the plate, there it is beſt for to anchor upon it.

Flambrough head. From the north point of the Humber called Spurnehead to Flambroug head, the courſe north northweſt 9 or 10 leagues, betwixt them it is ſhoale water of 6, 7 and 8 fathom deepe, Flambrough head hath many white ſpots & Chalke Hils, eſpecially upon the north ſide towards Fyley. Flambroug hath a Head or Piere. A league to the weſtward of it on the ſouth ſide lyeth a little Towne called Burlington, which hath alſo a Piere. You may anchor there in the Bay in 6 or 7 fathom.

Burlington.

Fyley. Three leagues by weſt Flambrough head lyeth Fyley, in a round baye to the ſouthwardes of a poynt that lyeth out, which hath a Pier Head, where you may lye within it, but it falleth there drie at lowe water.

Fyley-bridge. Whithout the head of Fyley lyeth a rock under water, called Fyley bridge, betwixt it and the Pier you may well lie a flote with a ſhippe of an hunderd laſts, 5 fathom at low water, & have ſhelter for a n. e. & caſt winde.

Scharbrough. From the poynt of Fyley to Scharbroug it is n. w. 2 leagues. Scharbrough hath two Pieres or Heads, where you may runne with in them at high water from the ſouthwardes, but at low water it falleth there alſo drie. Men come in there from the ſouthwards.

Robbin hoods bay. From Scharbrough the coaſt lyeth alongſt by Robbinhoods bay, until before Whidbye, moſt n.w. but paſt Whidbie the land falleth in w. n. w. and by little and little more weſterly unto the Tees.

Robbenhoods bay is a good road for a ſ. ſ. w. & weſt winde, there men lie in 7 or 8 fathom.

Whitby Whidby is a tide haven, which falleth drie at lowe water, at the eaſt ſide of the haven runneth of a riffe of roks, where you muſt take heede. For to ſaile in there, you muſt runne in betwixt the two beakons, untill that you come in betwixt the two lands, and anchor there.

From Whidbie to the Theeſe the coaſt lyeth moſt weſt Huntly foote. n. w. and weſt and by north, about ſeven leagues, betwixt both lye Huntley foote and Redcliffe. Huntley foote is a high hill, lying on the Sea ſide, about 4 leagues to the eaſtRedclif wardes of the Tees. Redcliffe lyeth about halfe wayes betwixt Huntley foote and the Tees, it is a cliffe of ſuch verie redd earth, that when the ſunne doth ſhine againſt it, it is to ſee to like redd cloth theſe two are verie good marckes, for to know this coaſt by.

Cloſe to the ſouthwardes of the mouth of the Teeſe lye three Riffes, which lye about a halfe league e. n. e. into Sea, which are verie foul and ſtonie, and fall drie at low water, upon the north ſide they are verie flatt, ſo that you may ſound about by them, in five, ſixe and ſeven fathom, but on the ſouth ſide are ſoo ſteepe that comming neare them, and ſounding in thirteen and fourteen fathom, you ſhoulde upon them, before you ſhould be able to heave the lead the ſecond time.

A league and a halfe to the northwards of the Theſe lyet Hartlepole, upon a point that lyet out al moſt like an Iland. For to goe in there you muſt runne into a bigt to the ſouthwards of the towne with a head, untill you come againſt the towne, there you ſhall lye drye at low water.

Hartlepole. About halfe wayes betwixt Hartlepole ande the Theſe, runneth of alſo a riffe of roks thwart from the ſhoare a good wayes into Sea, come no nearer in then five or ſix fathom. There ſtandeth a mill to the nordwards of the towne Hartlepole, if you keepe that to the weſt-ſide of the towne Hartlepole, then you cannot ſayl upon that foreſayd riff, but if you bringh the foreſaid mill a little to the weſtwards from the town, ſo that you may plainely ſee through betwixt the mill and the towne, then you ſhall not faile to ſaile upon that riffe.

The Paps. For to ſaile into Theſe comming from the northwards, you muſt obſerve theſe markes following. A good wayes to the northwards of Hartlepole, a little to the ſouthwards of Sonderland, & a little within the land lye upon the hig land, two hommocks cloſe one to the other, verie eaſy to beknown, of faſhion like Wormens Breaſts, called the Paps, keepe theſe two hommoks even without the point of Hartlepole, which ſhal then ſtand from you n. w. & by north & ſaile ſo on to the ſouthwards, & you ſhall before the Tees, & ſhall not ſaile so neare the ſands that lye out before the mouth of the Tees, & lye about a halfe league into Sea.

On the both ſides as well on the northſide as the ſouthſide of the Tees ſtand two little white houſes for fire-beacons: If you come from the northwardes and get ſight of them, bring firſt the two ſouthermoſt one in the other, which ſhal then ſtand from you ſouth and by eaſt, ſaile right in with them, intill that the other two which ſtande on the northſide of the Theeſe, come alſo one in the other, then leave them on the north-ſide, & ſayle in rigt with them that ſtand on the north-ſide, and ſo you ſhall runne in amidſt the channel, there is upon the barre or ſhoaleſt, at low water no more then 5 foote, but it floweth there with a common tyde, at leail 2 fathom up and downe. A ſ. w. Moone maketh there full Sea. If when you come from the ſouthwards, you will ſaile into the Teeſe, then bring the innermoſt of the two fire-beakons (which ſtande on the north-ſide) at leaſt a handſpikes length, or the length of a capſtone barre, to the northwards of the other, and runne ſo weſtwards towardes them, untill that the two fire-beakone on the ſouth-ſide are one in the other, then ſayle rigt with them, as hath beene ſaide, until that the two fire-beakons on the northſide come one in the other: when you have them one in the other, runne right with them, untill that you come by the northſhoare, and then cloſe along by it.

When as that you come ſa farre in paſt the firſt fire-beakon, to witt, that you may ſee Hartlepole betwixt the two fire-beakons, there you may anchor in 3, 4 or 5 fathom, or when Hartlepole commet betwixt the foreſaid firebeakons, then go ſ.ſ.w. untll that you come by the ſouth ſhoare, there it is alſo good anchoring. Further it is Pilots water unto Stockton, fore there within, the depes doe ſhifte oftentimes and that in ſhorte time, 3, 4 or 5 times in a Summer.

He that will ſayle in there with northerly winds, & a floud muſt reckon well his tydes, for the floude falleth ſtrong to the ſouthwards of the grounds, & ſhould there by be ligtie carried behind the banck to the ſouthwards of the buye, which lyeth upon the poynt of the banck.

Beſides this foreſaid channell there runneth yet another channell throug the grounds, which lye off from the northpoynt of the Thees. For to ſayle in there, you muſt take marke of the two hig lands within the land, to the ſoudwards of the Tees, bring them within a handſpikes length one to the other, or bring the Paps to the weſt-ſide of Harnelope, then ſhall alſo a foreſaid two hig lands come within a handſpikes length neare one to the other, ſaile in rigt with them, ſo you ſhall run rigt into that new channell, alongſt throug that a foreſayde ſand, and come againſt the buye (upon the ſands, on the ſouth-ſide of the Deepe) againe in the rigt fareway. When that you get again deeper water, or have the two firebeakons on the northſide one in the other, then goe in towards them, and further as hath been beforeſaid.

About

About ſeven leagues to the northwardes of the Tees lyet the River of Sounder, a little to the northwardes off the Paps, which ary very good markes for to know the land by there abouts. When the Paps are ſ. ſ. w. from you, and that you are about an Engliſh mile from the land, then are rigt before the River of Sounderland, the ground is there abouts indifferent cleane, but ſomewhat ſtonie, you may anchor there in 4 or 5 and 6 fathom. On both ſides, as well on the north-pointe, as the ſouth-pointe of the River it is ſtonie. On the north-pointe ſtandet a beakon in the water, there you muſt runne in, within a little ſhippes lengt alongſt by it, being paſt that you ſhall get deeper water, to wit, a fathom and a halfe, and two fathom at low water, but upon the barre remainet no more then tree foote. With a common ſpring and hig water there is about two fathum & a half, or a little more.

After this a foreſaid firſt depth of a fathom and a half or two fathum, you ſhall meet againe wit a ſtonie floote, about tree ſhips lengts broad, upon it is at hig water about 11 or 12 foote deep, according as the tydes ſhall runne, being over there, it is again deeper. A little paſt that is a narrow place, where a long ſhippe ſhall ſcarce be able to wend, within it is wide enoug, and every where good anchor ground.

From the tees to Tinmouth the courſe is n. n. w. 8 or 9 leagues. Two leagues to the ſouthwards of Tinmouth lyet the point of Sonderland, but cloſe to the ſouthwards of Tinmouth goeth in the River of Newcaſtle. From the point of Tinmouth ſhooteth of a ledge of rocks, you muſt ſayle in by it, leaving it on the ſtarboard ſide. The markes for to ſaile in to this River are two fire towers or firebeakons, which ſtand upon the north ſhoare, bring them one in the other, or innermoſt (that is the higheſt) a little to the northwards of the outermoſt or loweſt, and ſayle ſo rigt in, alongſt by the a foreſaid ledge of rocks on the north-ſide, and ſo you ſhall have upon the ſhoaleſt two fathom at halfe floud, a ſouthweſt Moone maketh there full Sea. The ſouth ſhoare is flatte, you may lead it in there with the ſounding pole, for ſhips, that goe not depe, in ten foote at halfe floude. When you come within, runne all alongſt by the north ſhoare, untill paſt the little towne Sheels, edge then over to the other ſhoare, untill you come throug the croocked reach, there the river lyeth up againe a little to the northwards, and then to the ſouthwards to Hawkes-bill, and about by it to the towne New-caſtles.

Seven or eight leagues to the northwards of Tinmouth lyeth the Cocke Iſland, betwixt them both about halfwayes lyeth a River called Bly, where the Frenchem doe much ſayle to fetch coale. From the north-point of this river runneth off ledge of rocks a great ſhot of a caſt peece, about ſoutheaſt into the ſea, but the ſouth-ſide, & the coaſt to the ſouthwards of it, it is very cleane ſand-ſtrand. Upon the ſouth-point ſtand two beakons: If you will ſaile in there bring them one in the other, and ſayle rigt in with them, and then you can take no hurt of the foreſayd ledge or riffe of the north-point. When that you come by or thwart of the outermoſt of the two foreſayd beakons, you ſhall ſee there by in another ſmaller beakon, that ſtandeth upon a little ledge rocks, that ſhooteth off from the ſouth-poynt leave that on the larboard-ſide, and runne in alongſt cloſe about northwards of it. The foreſayd ledge of Rockes on the north-ſide remaineth at hig water (a good wayes from the land, and alſo at ſpring tyde) above water, within it is a bigt, there it is good lying for a north or northeaſt winde, & there remaineth at low water two fathom depth. In the mouth of the River it is with an ordinary tyde and hig water about two fathom deep, or ſomewhat more, and it floweth there two fathom up and downe, ſo that at low water it falleth allmoſt altogether drye.

The Cocket Iſland, is a very little Iſland, and not hig, lyeth about a halfe league from the land, you may come to anchor in it for an eaſt, ſouth and ſoutheaſt wind, but the winde comming to the northwards of the eaſt, maketh there a bad roade, for you muſt lye betwixt the Iſland and the maine land where you haven no ſhelter for a north winde. On the ſouth-ſide of the Iſland the ground is foul, & a little to the ſouthwards of the Iſland, runneth off a foule ledge of rocke from the ſhoare, untill thwart or paſt the Iſland. He that commeth from the ſouthwards muſt keepe the Coaſt of Bambroug without the Iſland, or els he ſhould not ſayle to ſayle upon the poynt of that foreſayd ledge.

Betwixt that ledge and the Iſland it alſo very narrow, ſo that a man ſtanding at low water marke upon the rockes of this ledge, ſhould almoſt be able to caſt with a ſtone unto the Iſland. For to ſayle in there, take heed unto theſe marcks here after deſcribed: there ſtandeth a houſe upon the ſea-ſide, which is a Salt kettel, & alſo a Caſtle ſomewhat further in within the land, which doth ſhew it ſelf high enoug, bring them one in the other, & then they ſhal ſtand ſomewhat more northerly then weſt from you, and runne ſo rigt in with them, and ſo ſhall runne in rigt amidſt the channell betwixt both, being come within edge up behinde the Iſland, & anchor there in five or ſixe fathom.

About this Iſland there run alſo maine more divers little rivers in to the land, but they ſal moſt dry at low water.

Of the Depths & ſhoales about theſe Places, and in what Depths men may ſee the Land.

Twart of Winterton and Cromer, 7 or 8 leagues from land, it is 18 & 19 fathom deep, and there you may ſee the land n. e. and n. e. & by north from Cromer lyet a Banke, where upon remainet at half floud no more water then 4 fathom, from thence you may ſee the land indifferent wel.

North and by eaſt from Blackeney lyet a banke, were upon remainet at halfe floud no more water then 5 fathom. In 18 fathom tereabouts you may ſee the land. From thence to the point of Chappel it is al ſhoaly.

About n. n. w. & north & by weſt from Winterton-ſand lyet the banke Cromer 5 leagues without the coaſt.

To the northwards of the Humber of Hull, you may ſee the land in 35 fathom.

Flambroug-head men may ſee in 35 fathom.

Scharbroug men may ſee from below in 45 fathom.

Of the tydes & Courſes of the Streames, about theſe foreſayd Places.

Before Crommer a ſ. e. Moone maket hig water.

At Blackeney, Wels, Bornum and Lyn, an eaſt and weſt Moone.

Before the Humber off Hull an eaſt northeaſt and weſt ſouth weſt Moone.

From Blackeney to Flambroug-head, the floud fallet ſ. e. and the ebbe northweſt.

At Flambrough & Fyly, in the Peer a weſt ſouthweſt Moone maketh full Sea.

At Scharbrough and Robbinhoods-Baye a ſouthweſt and northeaſt Moone.

Before the River of Newcaſtle a ſ. w. & n. e. Moone maketh alſo the higheſt water.

Thwart of Flambroug-head, Schaerbroug, the Teeſe, & alſo thwart of the river of Newcaſtle, the floud fallet ſ. e. and the ebbe n. w.

To the northwards of the Tees, the floud fallet ſ. ſ. e. alongſt the land, & from the Tees to Scharbrough ſ. e. & by eaſt.

How theſe Lands doe lye one from the other, and from the other Lands.

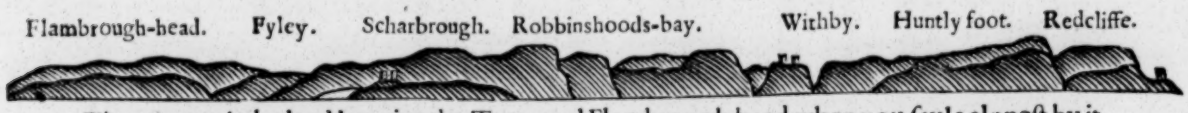
From Crommer to Blackney w. n. w.	3 or 4 leagues
From Blackney to Bornum throug within the ſand, weſt	7 leagues
From Bornum to Chappel w. ſ. w.	2 leagues
From Chappel to Elleknock, or the north-point of Boſtondeep, the courſe is n. w. and north	5 leagues
From thence to the north-point of Humber n. & n. & by weſt	7 leagues
From the north-point of the Humber to Flambroug-head n. n. w.	9 leagues
From the north-point of the Humber to the Teſſel, eaſt and by ſouth and eaſt ſoutheaſt	55 leagues
From Flambroug-head to Fyly n. w. & by weſt & w. n. w.	3 leagues
From Fyley to Scharbroug n. w & by weſt & n. w.	2 leagues
From Scharbroug to Widbye n. w.	5 leagues
From Whidbye to Teeſe, the courſe is firſt w. n. w. and afterwards weſt and by north	7 leagues
From the Teeſe to Tynmouth, n. n. w.	8 or 9 leagues
From Whidbye to Tinmouth, the courſe is n. w. & ſ. e.	16 leagues
From Tinmouth to the Cocket Iſland n. n. w.	8 or 9 leagues.

Heigths.

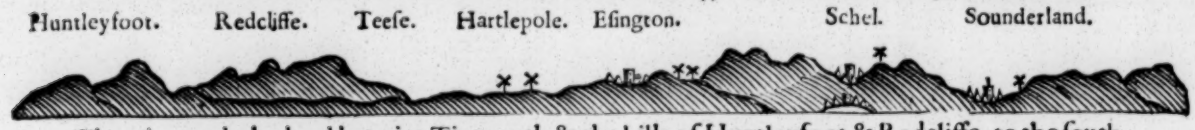
The north-point of the Humber of Hull in	53 degrees 35 minutes
Flambroug-head lyeth in	54 degrees 5 minutes
Scharbroug in	54 degrees 12 minutes
Tynmouth or the River of Newcaſtle in	55 degrees 10 minutes.

How

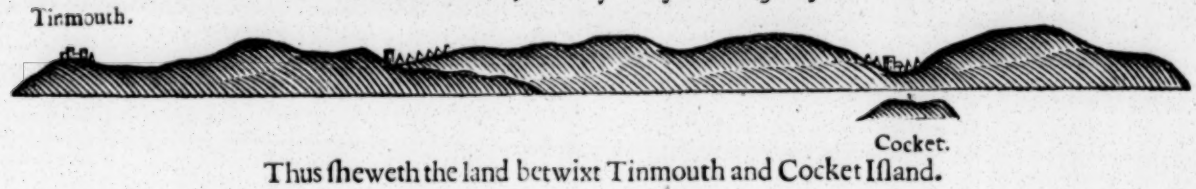
How these Lands doe shew them selves at Sea.



Thus sheweth the land betwixt the Trees and Flambrough head when you sayle alongst by it.



Thus sheweth the land betwixt Tinmouth & the hills of Huntleyfoot & Redcliffe, to the southwards of Teese, when you sayle alongst by it.



Thus sheweth the land betwixt Tinmouth and Cocket Island.

The twelfth Demonstration,

In which

The East side of Scotland, is shewed, from the Island Cocket and Orcaneis.

Staples. FRom the Cocket Islands to the Staples the course is n. n. w. & north & by west 8 or 9 leagues. The Staples, they are hig Islands & rocks right to the eastwards of Bambrough, lying at least 3 leagues from the land n. e. into Sea, a little to the northwards of them lyeth the Holie Island. To the southwards or the

Holy Island. westwards of the Holie Island is a baye where you may lye landlockt almost for al windes, against the Castle is the best roade: you may also runn in there from the southwards, through betwixt the Staples and the maine land.

Betwixt the Staples & Holy Island lye two sunken roks, which at low water come verie neare even with the water, the westermost toward the Holy Island, is called the Gold

Gold stone. Plough. stone, the eastermost by the staples, is called the Ploug. For to avoyd them, when you will sayle through betwixt the Staples and the Holy Island, whether you come from the southwards or the northwards, then bringh the steeple of Teustenbroug over the Castle of Bambroug & keepe them so standingh, and then you shall run through betwixt them both, this channell lyeth so through n. e. & s. w. From the outermost end of the Staples to S. Abbenshead, the course is n. w. 8 or 9 leagues.

S. Abbens-head. From Holy Island to S. Abbenshead it is north northwest 7 or 8 leagues.

To the northwards of S. Abbenshead men doe runne it unto Lieth and to Edenbrough in Scotland.

S. Abbenshead and the Island the Bas lye east and west four leagues asunder. The Island May and S. Abbenshead

The Bas n. w. and s. e. 4 great leagues. May and Bas lye one from the other s. w. and by west and n. e. & by east 3 leagues and a halfe. The Bas is a high round rok cleane round about, which you may saile alongst by on both sides. Betwixt the rock and the south shoare it is 13 and 12 fathom depe, but the common faireway is alongst to the northwards of it. Betweene S. Abbenshead and the Bas it is most part a cleane

Island May. Coast, but without anchor ground. The Island May is greater then the Bas, and also cleane round about, except on the east side, there it is foule.

From S. Abbenshead alongst to the n. w. of the Bas, the course is west and by north, & w. n. w. 4 leagues, and from by north, the Bas to the Island Inckieth west & west and by

Inch-kieth. north about 5 leagues. Betweene the Bas and Inckieth by the south sheare lye many rockes, little Islands and foulne grounds, where at divers places is road, but are to be used, but by them which are there verie well acquanted. Inchkieth & the Island May lye s. w. and by west and n. e. and by east 7 great leagues asunder. Inchkieth is somewhat a long small Island, a league to the northwards of it lyeth an out point on the north coast called Kingorneese, before it and about it lie some little roks, under water, but a little to the eastwards, of the eastwards of the point is a good anchor ground and road for westerly winds. Betweene that point and the Island May, or the point of Fifsnes on the north shoare lye divers little Havens, where of some of them doe also yeeld out coales, but are little or nothing used by the Hollanders, on both sides of Inchkith is good ground, and good lying as wel for wester as easterly winds.

From Inchkieth to Lieth is s. e. a league. Before Lieth about halfe an English mile from the shoare lyeth a Rock upon which standeth a Mast (with a crosse or some other thing of wood upon the top of it) for a beakon. At hig water the sea floweth over it, and at low water it falleth dry. With a spring tyde at low water men may go on foot to it. From the east side of that rock lyeth of a Riffe almost unto Inchkieth. You may also run through to the southwards of Inchkieth betwixt that foresaid riffe and the south shoare, but is not to be done. But by them which are there exceeding well acquainted: There is altogether full of rocks & soule grounds. When as you saile in to the northwards of Inchkieth you must leave the foresaid Mast on the larboard side, and run about to the northwards of it, and then towards the south shoare, and anchor about halfe an English mile by west Lieth, and also halfe an English mile from the shoare, in 6, 7 or 8 fatum. Lieth is the Haven of Edenbroug a tyde Haven which fall dry at low water.

From Lieth to Quenes Ferrie there lye on both sides many Rockes, some above and some under water. In the narrow before Queenes Ferrie lyeth a little Island called Inchgarve which you must runne alongst to the nordward of, on the south side it is with a stone bancke (where men may goe over at low water) fast to the maine land, along to the northwards of it, it is cleane and deepe. Within the little Island lye Caryn & other places more where men do lade Coales.

Under the east side of the point to the northwardes of Queenes Ferrie is good road in 2, 3 or 4 fathom, according as you lye farre from the shoare.

A league north from the Island May lyeth the point of Fifsnes, lying from S. Abbenshead n. w. & by north 4 great leagues. From thence to Dondee it is n. n. w. five leagues. Dondee is a good Haven which goeth in betwixt two low lands, being with men doe anchor before the Towne. Further in upon the Rivier lyeth another Towne called St. Johns, which you may goe up to at high water.

Betweene the poynt of Fifsnes and Dondee lyeth all the Baye of St. Andrewes, there is all over good anch-
grou-

De Cuſten van

SCHOTLAN

met de Eylanden van Orcaneſſe ; van 't Eylan
tot I. Sande.

't Amſterdam.

By Iacob Theuniſz. op 't water in de Looth
man.

SCHOTS

Korsn

Edenburgh

Oucen's feer

S. Ians

Liet oste Seetgn

I. Meinkieff

Castel

Donde

Brought

Mouros

S. Andreas

Athen

Northeske

Bas

I. May

't Schaep

Steenhooft

Lemmerlaun

Barwyck

Dunstelburg

Alnewath

Holy Island

Goustoen

Ploegh

Stapele

De Schaffen

Coket oste Coggeneylant

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

C. Strathat

I. S. Martyn

I. Hyplant

C. de Hobrant

Dornok

Rosse

Lawernes

Uusse

Norne

Fruderne

Hreckwad Skyn

Culame

Spey R.

Banff

Aberdin

Slaves

Out-Aberdin

Ethan

Doulem

Passage

Boekenese

Spey

Spyslaert

Boeckeneß

Ratterbrug

Catenese

Abeend

Noss head

Olde wyck

Denet

Dunkeh

Berghead

Hamnbrughaven

Wayß

I. Ronse

I. Genet

Pladda

Pomona

Darsay

Wesmeie

Eyelse

Orcanese

Pightlandsfharre

Pightlandsfirth

de Eylandt

wint Orcades

D

ground. Fore great leagues north & by east from the point of Fisnes, and n. e. from St. Andrewes lyeth a great Rock called Inchkap, which the sea floweth over at hig water, & at low water it fallet so dry, that the Fishermen goe upon it.

Inch-kap.

Seven leagues to the nordwards of Dondee lyeth Monrosse, a good haven. First you must saile in there amidst the channell, and edge up to the northwards, and anchor before the Towne.

Mon-rosse.

Over against Monrosse lye three hommoks, which shote out from the other land, bring the middlemost & the houses upon the strant together, then shal you find the midle of the fareway, on both sides of the havens mouth lyet a blind cliff.

Betwixt Dondee & Monrosse lyeth an out point called Redhead, about a great league to the soutwards of Monros, there standeth a hig Tower upon the land, called Abrot.

Red-ead.

From Monrosse to Stone-baye or de Torre the course is n. e. and by north 4 leagues. This is a deepe Bay & a good haven for those that are bound to the southwards, where men may lye landlockt with many ships.

Stone-ay.

Three leagues to the northwards of lyeth Aberdyn, in this havens mouth it is 3 fathom deep. The west-poind is somewhat foule, therefore you must run in by the east land, untill you come within the haven, and anchor before the Towne in 4 or 5 fatum. Up to the nortwards is a great Bay but is shoale on both sides, there goeth troug a little Creeke towards old Aberdyn, which is an old ruinous Towne.

Aber-yn.

From Aberdyn to Boeckenes this course is n. n. e. 12 or 13 leagues. Betwixt them both lyeth a tyde haven. Boeckenes is a hig hill and lyeth upon the southside of the point. To the northwards of Boeckenes lyeth a Bay as a Haven called Spy or Spilart, and rigt before the shoare lyeth a sand called Ruttenburg, which you must take great care there of as you come from the northwards, from thence the land lyet in west & w. s. w. unto the haven of Rosse or Luvernes.

Boec-enes.

Spy.

To the northwards of Rosse lyeth an out point, called Cape Tarpate, rigt in the Bottome of the Baye, betwixt Catenes and Boeckenes, distandeth from Boekenes about 19 or 20 leagues. In this bay are manie haven & sounds, which are deep enoug for to come into with great ships. It is from thence to Catenes 14 leagues n. e. and by north. Catenes lyeth from Boeckenes n. w. & n. w. and by north 20, 21 or 22 leagues. From Boeckenes unto the outermost Orckanes it is north and by west, and n. n. w. 32 or 33 leagues.

Tar-

The Orkeneis are 31 Islands in number, firist Wayets or Elhoy, which lyeth next to Scotland, 5 leagues about the point. About n. n. e. of from the point of Catenes lye two little Islands Pito and Pichlandscare, there you may runne troug to the westwards betwixt Elhoy and Scotland.

To the northwards of them lyeth an Island called Heynda, with an other Island called Platta, to the northwards of platta lyeth Mayland or Ponoma. On the north-side of this great Island are all the havens where the Ships come to.

Upon the eastside of this great Island lyeth another Iland called Kabunsa, to the northwards of it lyeth another Iland at the northeast point of the great Island you may also run troug there thwards Papewester, and leave Sanda lying on the starboard side.

Close to Papewester lyeth Fara, to the southwards of it is Sirza. To the eastwards of Sirza & Fara lye two Islands, in the middest of all these Islands, called Feda & Chapnoza.

Sanda lyeth to the northwards of all these Islands, but Papa and Stronza lye to the southwards of Sanda.

To the east-wards of Stronsa lyeth an Island called Cuistella, that is the eastermost Island of all, the northermost is called Ronalze or Northernasa.

Elven or 12 leagues n. w. from the great Island lye two rocks, the one under water and the other above water, he that commet from the westwards must take heede of them.

Of the Tydes & Courses of the Streames.

On these Coasts betwixt Tinmouth and S. Abbens-head a s. w. and n. e. Moone maketh hig water.

At Lieth Havena s. w. and by west Moone maket ful Sea.

The floud falleth alongst the Coast s. s. e. and ebbe n. n. west.

A Orcanesse and Boeckenes a s. w. and n. e. Moon maketh hig water.

The floudes come about from behind Scotland from the westwards troug betwixt Fairehill and Orcanesse, and make thereabout full Sea a s. w. and northeast Moon.

From Boeckenesse, the floud falled south along the Coast towards Lieth, and the ebb north to the contraire.

In this fareway it is deep 40, 50 and 60 fatum, in 45 and 50 fatum you may see the land. In this fareway in the Summer the first Herrings are caugt.

Courses and Distances.

From Tynmouth to Staples north and by west	16 leagues
From Staples to Barwicke w. n. w.	3 leagues
From Barwike to S. Abbens-head n. n. w.	5 leagues
From the Stagles to S. Abbens-head n. w.	8 or 9 leagues
From S. Abbens-head to the Bas west	4 leagues
From the Bas to Inkieth west and west and by north	5 leagues
From S. Abbens-head to the Island May n. w.	3 leagues
From S. Abbens-head to Fifsnes n. w. and by n.	4 great leagues
From Fifsnes to Dondee n. n. w.	5 leagues
From Tinmouth to Schuytenes n. e.	99 leagues
From Tinmouth to the Naze n. e. and by east easterly	103 leagues
From Tinmouth to the Scawe e. n. e.	103 leagues
From Tinmouth to Holyland east by south easterly	106 leagues
From Fifsnes to Stone-Bay north and by east	16 leagues
From Redhead to Monros n. w.	4 leagues
From Monros to Stone-Bay n. e. and by north	5 leagues
From Stone-Bay to Boeckenes n. n. e. somwhat northerly	16 leagues
From Aberdyne to Boeckenes n. n. e.	12 leagues
From Boeckenes to Phyloort or Spyloort n. n. w.	3 leagues
From Phyloort to the point of Eglyn west	10 leagues
From the point of Eglyn to the Haven of Rosse or Leuvernes west and by south somewhat southerly	7 leagues
From the Cape de Terbate to Catenes n. e. and by north	14 leagues
From Catenes to Ilhoy w. n. w.	5 leagues
From Boeckenes to Catenes n. w. and n. w. and by north	22 leagues
From Boeckenes to Orcaneis north and by west and n. n. w.	26 leagues
From Boeckenes to Hanglip, or the south-end of Hitland north somewhat easterly	50 leagues
From Boeckenes to Schuytenes east and by north somewhat northerly	72 leagues
From Boeckenes to the Naze east somewhat southerly	88 or 90 leagues
From Boeckenes to Boevenbergh in Jutland east and by south	106 leagues
From Boeckenes to Holyland s. e. and by east	128 leagues
From Boeckenes to the Tessel s. e. southerly	143 leagues
From Boeckenes to the Holmes before Yarmouth s. s. e.	108 leagues
From Aberdyne to the Holmes before Yarmouth s. e. and by south somewhat southerly.	100 leagues.

Heights.

S. Abbenshead in Scotland in	56 degr.	12 min.
Boeckenes lyeth in the height of	57 degr.	55 min.
Catenes in	58 degr.	40 min.
The greatest or the outermost Island of the Orkeneis in	56 degr.	8 min.

How these Lands doe shew them selves at Sea.



Thus sheweth Boeckenes, when you saile alongst by it.



In this form sheweth the land Catenes, when you saile alongst by it.



Thus sheweth the n. e. point. of Orkenes, when you saile alongst by it.



Thus sheweth the land of Scotland to the northwards of Aberdyne, when you saile alongst by it two leagues from the land.

The thirteenth Demonſtration,

Where in are ſet forth

The Coaſt of Fairehil, Hitland and the Iſlands there abouts as alſo the Iſlands of Fero & ſome Iſlands behind the northweſt Corner of Scotland.

Fayre-hill. THE Iſland Fairehille lyeth from the eaſt point of the Orcanis n. e. & from Boeckeneſſe north and by weſt, about 37 leagues.

On the weſt ſide of Fairehill is at ſome places foule ground, but upon the ſ. e. ſide is good anchor ground, there you may anchor every where, but there ſtretcheth a riffe on the eaſt ſide of the ſhoare of ſ. e. 2 leagues into ſea.

Fulo. Fulo lyeth from Fairehill n. w. & by north 10 leagues, betwixt them both lyeth the ſouthermoſt point of Hitland, lying from Fairehill n. n. e. 7 or 8 leagues, & from Fulo eaſt and by ſouth 4 leagues.

The ſ. w. coaſt of Hitland, (to wit from the ſoutſtermoſt point to the n. w. point) lyeth n. w. & by north 8 or 9 leag. On the ſame ſ. w. ſide, over againſt the Iſland Fulo lyeth a Sandbay, where men may anchor, but on the eaſt ſide of this Bay, it is ſomewhat foule. From that n. w. or weſt point of to the north-end, the land of Hitland lyeth n. e. and by north and ſ. w. and by ſouth 20 or 21 leagues.

S. Magnus. Two leagues to the nordwards of the foreſaid weſt point lyet the haven of S. Magnus, which is a broad ſound, within it is good anchor ground in 16 or 17 fathum depth, according as you ſhall be farre within the land. On the north ſide lyeth a high rocke, where you muſt run in the ſouthwards of. And on the ſouth ſide lyeth 2 or 3 roks, which you muſt leave on the ſtarboard ſide, when you ſayle in there.

Even to the eaſtwards about the ſouth point of Hitland, lyeth a faire Sand-bay, where you may anchor in 12 or 13 fathum, from thence to Hanglip, the courſe is n. e. ſomewhat eaſterly 8 or 9 leagues.

Hanglip. Hambrough haven. Betwixt Hanghlip and the ſouth point lyeth an Iſland, which you may ſaile about on both ſides, within it lyeth Hambrough Haven, or the Scottiſh Haven, which is a lade place for the Hamburger and Scots. This haven is alſo called Bremer Haven. There lyeth alſo a high ſteepe point to the ſouthwards of Hanglip, to the ſouthwards of it men doe runne into Broad-ſound, the chiefeſt Haven of all Hitland, which is deepe and hath cleane ground, there men doe lye landlockt for all winds.

Broad-ſound.

From the Broad Sound lyeth a Sound in alongſt to the northwards, throug the land, which commet out againe into the ſound to the northwards, and ſo maketh an Iſland of the land where upon the hig hill Hanglip lyeth. When as you will ſayle in there from the northwards, that is to the nordwards of Hanglip, you muſt runne in neareſt by the ſout ſhoare, & edge to it betimes. In this channel betwixt both lands lye two Iſlands or rocks, the greateſt lyet neareſt the nord ſhoare, & the ſmalleſt neareſt the ſouth ſhoare, betwixt them both alſo a ſunken rocke, which at low water is uncovered, and at high water you may know it by the breaking upon it. When as you will ſayle in there, you muſt leave the foreſayd greateſt Rocke, with the ſuncken rock, an the ſtarboard ſide, and the ſmalleſt Rock on the larboard ſide, there is upon the ſhoaleſt 3 fathum and a halfe water.

Within this haven lye alſo two havens at the nord-point, which lye into the land, where is goo lying.

When as you wil ſayle from this foreſayd haven throug within unto the Broad-ſound, you ſhall meet, ſcarce halfe wayes with a rock, from which lyeth off a riffe towards the weſt ſhoare thwart of it you muſt runne cloſe alongſt by the weſt ſhoare, to avoyd that riffe.

To the northwards of Hanglip, the land of Hitland lyeth north and by eaſt and n. n. e. at leaſt north and at ſome places you may ſaile in throug Hitland, eſpecially to the nordwards of Waelſoen, where a faire broad Sud lyeth n. w. throug there is good anchor ground to finde at ſome places, for theſe that are there acquainted. From Hanglip to the northeſt-point of Hitland, the courſe is n. n. e. 10 leagues,

Outſchares. there lye ſome outrocks called the Outſchares. From thence alongſt to the north-point of Hitland, the courſe is north about 4 leagues.

A little about the eaſt-point goet in a faire haven, called Bloem-ſound, lying in ſ. w. On the weſt-ſide lyeth a long rock, you muſt ſaile into the eaſtwards of it, and a anchor a little within the haven, it is there within al cleane ſand ground, & lying. Bloem-ſound lyeth in firſt (as hath been-ſaid) ſ. ſ. w. afterwards ſouth and ſouth and by eaſt on both ſides is good anchor ground, there you may ſayle altogether throug, and come out againe throug Jelle-ſound into ſea, about the Iſland Fero. Bloe ſoun

The greateſt & chiefeſt Iſlands of Fero at 12 in number, as Suydro, Sando, Moggenes, Wage, Stromo, Oſtro, Calſo, Cuno, Bordo, Wydro, Swyno & Fulo. Na of t Iſla of

The litle Iſlands of Fero are 10, as Litledymen, Stoerdymen, Schuyvo, Dalsfles, Heſden, Trallo, Colſter, Moggenſholme, the Monk & the Biſhop. Beſides theſe there are yet ſome rocks & little Iſlands, to 7 or 8 in number.

The ſoutermoſt great Iſland called Suydro, lyet moſt ſe. & n.w. about 7 or 8 leag. At the ſ. e. end of this Iſland lyet a hig rock, called the Monk, or Sambie, after the name of the firſt or ſouthermoſt haven in Suydro. Betwixt the Monk & the ſoutheaſt-end of the Iſland Suydro, is a race or Well, which men muſt avoyd eſpecially with ſpring tydes. So Mo Sa

Upon the weſt-ſide of the Iſland Suydro are no havens for to ſave any ſhippes in, but it is altogether hig ſteepe land. On the north-ſide are maine havens, where men may ſaile into and ſave ſhips, as Sommerſound or Heſt, Holwycke, Vroble, Quaelbie or Ranie, all broad ſounds or havens, a contrieman or Pilot can bring you in there every where to your deſire.

From the northweſt-end of Suydro to Moggenſholme, the weſtermoſt and outermoſt Iſland of Fero, the courſe n. w. and by north, and n. n. w. about 8 leagues.

At the eaſt-end of Moggoneſholme lyeth Moggenes, to the eaſtwards of it lyeth the Iſland Wage, and to the eaſtwards of Wage goeth in a faire Sound from the ſouthwards of from the Iſland Sando about Heſten and the Iſland Colſter, for you may run in about theſe Iſlands eaſt-ſide, & ſo come into Wage. In the middeſt of the Sound of Wage goeth upon a haven to the eaſtwards into the great Iſland Stromo, there in you may anchor in 10 or 12 fathom, but the Sound is at leaſt 20 fathom deep.

Moggenes and the northeaſt-end of Fero lye e. n. e. or a little more northerly, & ſ. ſ. w. about 15 leagues aſunder. Betwixt them both lye 10 Iſlands, and betwixt each Iſland, is a faire broade and deep Sound where of fourth off from Moggenes is called Somſound. All theſe Sounds lye moſt n. n. w. & ſ. ſ. e. throug the land, and upon all theſe Iſlands ſtand Churches, except upon Oſtra, which never the leſſe is a great Iſland.

From the ſ. e. end of Suydro to Scalhead, or the ſ. e. end of the Iſland Sando, the courſe is north and by weſt about 5 leagues. Betwixt Suydro & Sando lye the little Iſlands, Little Dymen, Stoer Dymen, Scavo & Dalsfles.

From Schalhead untill within the Iſland Mulſo (lying before Stromo) the courſe is north and by weſt foure leagues, there you may every where anchor, where you will in 20, 30 or 40 fathom. If any man comming in out of the Sea, deſireth to ſee a good road or haven under the Iſlands off Fero, he ſhall keepe that middlemoſt great Iſland Stromo northweſt and northweſt and by weſt from him, and the hee ſhall ſee upon the middeſt of the Iſland Stromo a high ſteepe hill called Schellinck, which he muſt ſayle right in with, and ſo he ſhall meete with that foreſaid Iſland Mulſo, a low Iſland, which you may ſaile about on both ſides, but it is beſt for to runne in there at the ſouth, under this Iſland is all over good anchor ground. Right over againſt this Iſland, on the great Iſland, lyeth Torshaven, the chiefeſt haven of Fero, where al the trade of Merchandize is.

From

11

Eylanden van

HITLANT

ofte Schetlant. Faver hil en Fulo.

t'Amsterdam

By Iacob Theunisz op twater

inde Lootsman.

Fulo

Schaver

S. Maans

Noortwest

EYLANDEN

ofte SCHE

Dey Zuythoeck

Peerde Eyl.

Swynsbergerhooft

Faver hill

Connex Eyl

Arendsburg

Hanglyt

Eylanden

van

HEBRIDE

gelegen achter de noo

west hoeck van

Schotlandt

S. Kilda

Hun

Iust

Leus

S. Patricus

Skye

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Iello

De Blauwe bergen

Blomey sondt

Olsse

ofte

Oust

Ilsse sondt

Ballens sondt

Ballens Eylanden

Haskens

Haskens sondt

Ilons hoek

Ilons hoek

Ilons sondt

Feslo

Vuloeu

Swarte hoed

't scheren

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche mylen 20 in een graet

Eylanden van

FERO

ofte Farre

Mosgenesholm

MYGGENES

WAGE

STROMO

SANDO

SYDRO

OSTRO

VVVO

BORDO

WIDRO

SWINO

FYLO

Dalsflee

Saxsen

Ilvae

Oosterues

Bordowyck

In dese voort comt veel mal visch

De Bisschop Farro

Duytsche mylen in een graet

Spaensche mylen in een graet

Eng. ende Fra. mylen in een graet

Tör-
thave
Ful
The
Bilho

Name
of the
Iſland

Barra
or
Rona.

Tor-haven Fulo. The Biſhop.

From Torshaven or the Iſland Mulſo to the northeaſt-end of Fero the courſe is n. e. & northeaſt and by east about 12 or 13 leagues, betwixt them both lye 7 Iſlands, & betwixt each Iſland (as hath been ſayd) goeth a broad Soud throug the land: lying throug about in w. n. w. and by north, and n. n. w. The north-end of Fero is about 4 leagues broad, and lyeth n. w. and ſ. e. and it called Fulo, thwart of it lyeth the Biſhop.

He that deſired to ſaile off from Mulſo into Sondſound, let hem goe on n. e. and by north 3 leagues unto the point of Bordenes, then up n. w. off from Bordenes, & then he ſhall eſpie a Church upon the Iſland Calſo, which he muſt leave on the ſtarboard-ſide, and goe in along w. n. w. until he come into the Bight off the Iſland Oſtro, and anchor there in 17 or 18 fathom.

Theſe Iſlands of Fero lye in a triangle, it is from the ſoutheaſt-end off Suydro to Fulo, or the north-end off Fero n. n. e. and ſ. ſ. w. 12 leagues aſunder.

From Scotland weſtwards and to the northwards of Ireland, lye many Iſlands, where of we ſhall here deſcribe ſome, with ſo much perfection, as there of is yet knowne.

Names of the Iſlands.

The names of the principall Iſlands lying there are theſe: Areu, Ila, Jona, Mulla, Bragedull, Hun, Mun, Lewiis, S. Patricius, S. Maria, S. Colane, S. Petous, Epth & S. Kilda, theſe are the greateſt. There are yet ſome ſmall Iſlands: As Rona, Gent, Trauta, Fladde, Grand Melul, Petit Melul, Stalpan, Cannay, Rum, Egge, Mule, Cutte, Carndenbroug, Gronſay, S. Karbo, Lismont, Swynoy, Machare, Gegay, Cary and Navarſay. All theſe Iſlands doe lye and belong under Scotland, and are thoſe which by the Coſmographers are called Inſulæ Hebrides.

Barra or Rona.

The Iſland Barre or Rona is the northermoſt Iſland lying behinde Scotland, and lyet from Fulo about w. ſ. w. 37 or 38 leagues, it lyet by 2 other little Iſlands about a greate league one from the other.

The Iſlands of Lewis lye from Rona ſ. w. diſtant 16 or 17 leagues, and from the north-end of Lewis to S. Kilda, it is ſ. w. & by weſt, 16 leagues.

On the eaſt-ſide of S. Kilda is a good roade for a weſt and n. w. winde. This Iſland lyeth by the other little Iſland where off the two are not very great, upon that which lyeth to the weſtwards you may ſee ſome houſes ſtand, and theſe two little Iſlands lye 10 leagues to the weſtwards of the great Iſland of Lewis. Upon the coaſt of Lewis lye alſo two rowes of great rocks, like as if they where little Iſlands, lying one from the other ſouth & north ſomewhat eaſterly about 7 or 8 leagues.

The ſouthermoſt lye by 3 little Iſlands, but the northermoſt lye by eigt ſmall little Iſlands or rocks.

The Iſland of Lewis is devided into many parts, the which men may ſaile throug at many and divers places. Lewis with the Iſlands belonging to it ly ſ. ſ. w and ſouth and by weſt about 29 leagues.

But on the eaſt-ſide goeth a broade Sound throug of 5 or 6 leagues. Men ſail in cloſe by the Iſland of Lewis, about ſ. ſ. w. untill paſt the Iſland Cheut.

From thence the Sound lyet throug betwixt the great Iſland Bragadull & Lewis ſouth & ſouth by weſt towards the weſt-end of Lewis, called the Epths, then you muſt leave Mulla and Ila, with divers many other Iſlands on the larboard-ſide.

Jona, Ila, Mulla and Bragadul are 4 of the greateſt Iſlands, which are lying on the weſt coaſt of Scotland, and lye cloſe by the mayn land, but there are many havens and Sounds, ſo that there you may ſayle in and about them every where.

At the n. w. point of Ireland lye alſo ſome Iſlands, which you may ſaile throug and round about them all.

Betwixt Rona and Orkaneys lye alſo ſome Iſlands, which alſo you may ſaile throug betwixt and round about.

He that fallet with theſe Iſlands muſt be very carefull and circumſpect, for the moſt part of them are inhabited by wild and ſavage peole.

In Lewis and the Iſlands there about a ſ. w. and n. e. Moone maket the higheſt water ank likewiſe alſo without the north-point of Scotland.

Of the Tydes and Courſes of the Streamus.

In Hitland within the havens and Sounds a ſ. ſ. w. and n. n. e. Moon maketh full Sea. The flood runneth there to the eaſtwards, and the ebbe to the weſtward, eſpecially at the ſouth-end and north-end of Hitland, and ſo fall thwart throug the Sounds and Havens.

In the Iſland of Fero north and ſouth Moon maketh the higheſt water.

Under the Iſlands of Fero goe very hard tydes, with great turnings, the floud commeth there out of the weſt and w. n. w. the ebbe out of the eaſt & e. ſ. e. and fall ſo alongſt throug the Iſlands, there you muſt reckon your tides there after, when you will ſaile from the one Iſland to the other, there are two wels or Maelſtreames, the one at the ſouth-end of Suydry, and the other a league with in Scalhead at Quaelnes.

Although the tides doe run ſo ſtrong throug theſe Iſlands yet nevertheles it floweth not there foure foot up and downe.

How theſe Lands doe lye one from the other, and from the other Lands.

From Fairehill to the northeaſt-point of Orcanes ſ. w.	9 or 10 leagues
From Fairehill to the ſouth-end of Hitland ſ. ſ. w. and ſouth and by weſt	7 or 8 leagues
From the ſouth-end of Hitland to the Iſland Rona w. ſ. w.	46 leagues
From the north-end of Hitland to the roks of Rocol w. ſ. w.	127 or 128 lea.
From the ſouth-end of Hitland to Fero w. n. w. & n. w. & by w.	61 leagues
From the north-end of Hitland to the ſouth-end of Fero weſt and weſt and by north	58 leagues
From Hitland to the eaſt-point of Iſland, the courſe is n. w. & by weſt about	130 leagues
From the north-end of Hitland to Gryp n. e. and by eaſt the north-end of	115 leagues
From Hitland to Stad e. n. e.	66 leagues
From Fero to Rona, the courſe is ſouth and by eaſt	45 or 46 leagues
From the ſouth-end of Fero to Rokol ſ. w. weſterly	85 leagues
From Rona Lewis, the courſe is ſ. w.	16 leagues
From the north-end of Lewis to S. Kilda ſ. w.	16 leagues
From the ſouth-end of Lewis to the north-weſt-point of Ireland, the couſe is ſ. w. about	27 leagues
From S. Kilda to the north-end of Hitland n. e. & by eaſt	39 leagues

Of the Heights of theſe Lands.

The ſouth-end of Hitland lyeth in	59 degrees 48 minuten
The north-end of Hitland lyeth in	60 degrees 50 minuten
The ſouth-end of Fero lyeth in	61 degrees 15 minuten
The north-end in	62 degrees 20 minuten
The Iſlands of Rona lyeth in	58 degrees 46 minuten
The north-end of Lewis lyeth in	58 degrees 18 minuten
The Rock Rokol lyeth in	58 degrees 20 minuten
The northweſt-point of Scotland lyeth in	58 degrees 30 minuten

How Theſe Lands doe ſhew them ſelves at Sea.



When Fairehill is weſt and ſouth 3 or 4 leagues from you, it ſhewet thus.



When Fairehill is weſt from you, ſee Hitland n. w. from you, it ſhewet thus.



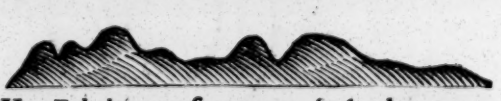
When Fairehill is ſ. e. and ſ. e. and by eaſt 3 or 4 leagues from you, it ſheweth thus.



Fairehill being 5 leagues ſ. w. & by weſt from you, ſhewet thus.



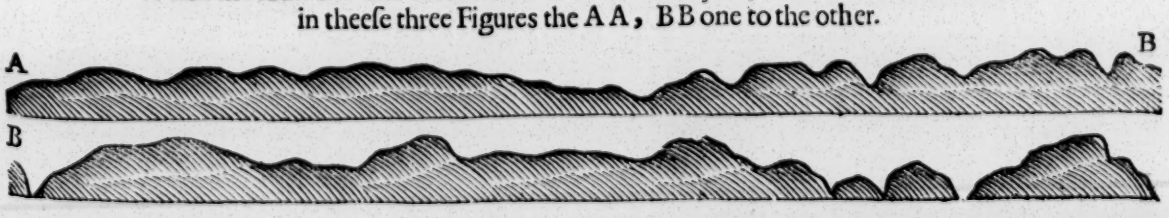
When Fairehills is n. w. and n. w. & by w. 4 leagues, it ſheweth thus.

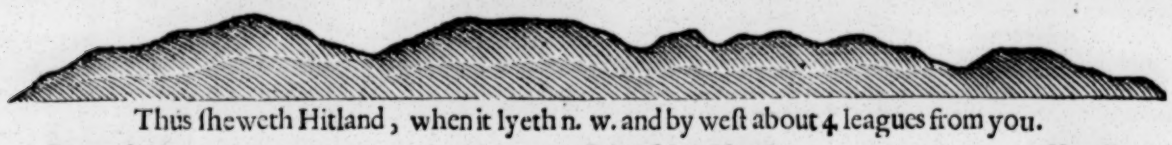


Wen Fulo is n. w. from you, ſo far that you may even ſee it out of the top, it ſheweth thus.



When the ſoutheaſt-end of Hitland is w. n. w. from you, then ſheweth the land as in theeſe three Figures the A A, B B one to the other.





Thus ſheweth Hitland, when it lyeth n. w. and by weſt about 4 leagues from you.

Bremer-haven. Point of Broadſound. Hanglip.



In this ſheweth Hitland, betwixt Hanglip and Hamburger-haven.



Thus ſheweth the land to the northwards of the haven of Broadſound, Hanglip northweſt from you.



Five leagues to the northwards of Hanglip, the land ſheweth thus, being about a league of from it, Hitland lyeth in there with a great bight, with many Iſlands.



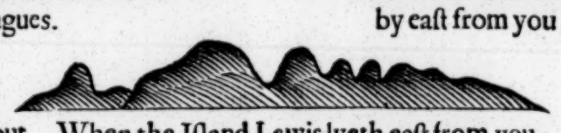
Thus ſheweth Hanglip, when it is n. w. from you 8 leagues.



When as the north-end of Hitland is ſ. e. and by eaſt from you, then it a riſeth thus.



When S. Kilduyen is ſ.w. about 5 leagues from you, it ſheweth thus.



When the Iſland Lewis lyeth eaſt from you, then it riſeth thus, and then you are without S. Kilda.



This Iſland lyet alſo upon the coaſt of Lewis.



S. Kilda 6 leagues ſ. w. from you, it ſheweth thus.



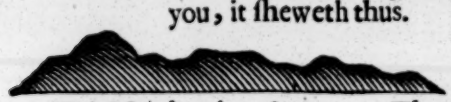
S. Kilda n. e. from you 4 leagues. it ſheweth thus.



S. Kilda ſ. w. and by weſt 4 leagues from you, it ſheweth thus.



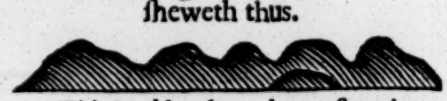
Fulo 4 leagues from you, it ſheweth thus.



This Iſland w. ſ. w. from Scotland.



Thus ſheweth the Iſlands Barre or Rona, when it is 4 leagues ſ. ſ. e. from you.



This land lyeth on the weſt-point of Scotland towards Locherme.



The ſouth-point of Fero w. n. w. from you, 5 leagues, it ſheweth thus.



The ſouth-point of Fero n. w. 6 leagues from you, it ſheweth thus.

PASCAART

van de Zee-custen van

Ruslandt, Laplandt, Finmarcken

Spitsbergen en Nova-zembla

't Amsterdam

By Theunis Iacobsz op 't water

inde Lootsman.

Op nieus oversien en ver-

betert





Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fran. mylen 20 in een graet

Abmiralitys Eylant
C. Plancio
Loms bay
3 Bergen
Langenes alias Staten hoeck
Den Eersten hoeck
Cant hoeck
t Swarte Eylandt
Costingsarck
Lourens bay
3 Huysen
Stellhaven
Oostelijcke Ingh
Strael van Nassau
Tonhoock
Staten Eylant
Nieu Hollant
I. Manritius
I. Orangen
I. Colgoyen
C. Condenoes
I. Monsonoes
Swetlynoes
I. Texar
Otheyaratkaya
Duyker lant
Colcova
R. Pylaua
R. Pirzora
Pirzora
Carona
Colcova
C. Barso
Lampas
Kilda
Coulay
C. de Vorna Fortuna
C. Bonifacy
Solowetze
Karetzkaes
Kaetzkaes dan Podesemske
Eylanden van Podesemske
Archangel
S. Nicolaes
Visschers Eylt
C. Dongen
Onega R.
Cargopolk
Lodges gat
Duina R.
Kola
Matkoy
Pontsjwerd
Wardhuys
Domeynes
Pas reka
Varanger
Snowen
Visschers Eylants
Laus
Kegor
Aynat
R. van Kola
I. Kilduyn
Tere biere
Liets Oevesen
3. Couingen
Gouden bay
dey Eylandt
Skipper
Noock ostwore al nagel Eylant
Eylanden van Swetenoes
R. van Iockena
Lambascha
C. Orlogoner
3 Eylanden
R. Pomoy
Soutkere
I. Tourie Habbe
Warliga
Caskarava
Pirzora
Soloskis
Lamas
Warmia
Rinde
Sabkoy Dael
Blasen Olmet
Blasen Sikoy
Soutt Riv.
Reen Eyl.
Noeck Duria
Sweticnoes
Siornenoes al
Swarten hoeck
Kleina
Eylanden van
Gouden bay
dey Eylandt
Skipper
Noock ostwore al
nagel Eylant
Eylanden van
Podesemske
Duina R.
Visschers Eylt
C. Dongen
Onega R.
Cargopolk
Lodges gat
Archangel
Kola
Warliga
Caskarava
Pirzora
Soloskis
Lamas
Carona
Colcova
Barso
Pirzora
Nova Zemla
Nieu Hollant
Strael van Nassau
Staten Eylant
I. Manritius
I. Orangen
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C. Plancio
Loms bay
3 Bergen
Nova Zemla

FINMA

I. Tromsoudt

Sandwater

Sandwater

Walsbyer

Rolbelle

Lockpelle

Rollen

Lohlyst

I. Ainas

I. Lossoert

10 20

Duytsche mylen 15 in een graet

10 20 30

Spaensche mylen 17½ in een graet

10 20 30

Engelsen Fransoysen 20 in een graet

CKEN
Tromsondt
water inde

R C K E N

Dronnen

Skiach
Oxaren
Sakan
Heiligh laut
Fraen oogh
Maelstroom
Werar

The first Part of the New

Ligtningh Sea Columne,

OR

SEA MIRROUR.

The second BOOKE of the

EASTERNE NAVIGATION,

Containing

The Descriptionof the Sea-Coasts of Norway, Finmarck, Lapland & the whole White Sea.

The first Demonstration,

Where in are seth forth

The Coasts of Norway, from Dronten to the Island Tromsound, as also John Mayes Island, and the New Found Land of Spitsburgh.

FROM the Island Gryp to the Nomen-dals Islands, the course is northeast 18 leagues, but from Gryp to the Island Rust, north and north and by east four and sixtie leagues. Betwixt them ly (besides the Nomen-dals Islands) also the Islands Holyland, and Traenoch. Traenoch and Rust lye 13 leagues asunder. From Rust to Wero, the course is n. e. & by north 9 leagues, but to Loffoert n.n.e. 33 leagues. Betwixt Wero and Loffoert lyeth the Maelstrame, where you may sayle throug, but at still water. By the west-point of Loffoert you may runne in, and make road under it. And also you may runne troug from thence within betwixt the Islands & the main land, all along unto the North-Cape.

Betwixt the Islands Westerholl, Sanien & Trom-sound, you may also runne in at divers places, and make road. Thwart of these Islands lye here and there in some places suncken rocks and foule grounds, a great league and more without the land. He that sayleth alongst this coast, may be carefull there of.

Of the Tydes & Courses of the Streames about these foresayd Places.

On these coasts a s. s. w. & n. n. e. Moon maketh full Sea. The flood commeth there out of the n. w. and w. n. w. and falleth alongst Finmarck towards the North-Cape.

Courses and Distanses

From Rust to Loffoert n. n. e. and n. e. and by north	33 leagues
From Loffoert to Sanien n. e. easterly	36 leagues
From Sanien to Suyro n. e. and by east	40 leagues

Heights.

The Maelstream lyeth in about	68 degrees
The Islands Sanien in	70 degrees.

How these Lands doe shew them selves at Sea



Rust east and by south from you sheweth thus.



When the east-end of Loffoert is s. e. and by east from you, it sheweth thus, with the land to the westwards.

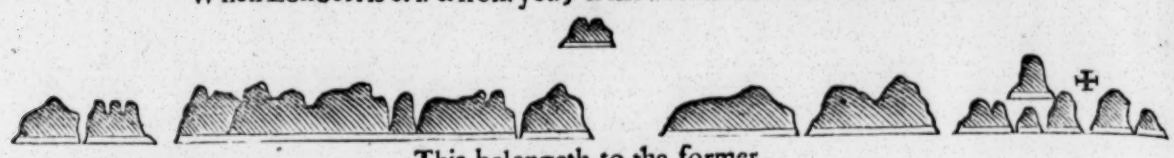


When Loffoert is s. e. from you 6 or 7 leagues, it sheweth thus.

When



When Loffoert is e. ſ. e. from you, it ſheweth and the land betweene thus.



This belongeth to the former.



The eaſt-end of Weſterhol ſheweth thus, when as you ſaile alongſt by it, about 7 leagues from it.



Theſe two Figures belong at the Croſſe one to the other.



Thus ſheweth the land of Sanien, when the two hig hils upon the eaſt-end are ſ. e. & by ſouth. & the point, with the Clif ſouth & by weſt from you 4 leagues. When as the two foreſaid hig Hils upon the eaſt-end are ſ. w. from you, then they are rigt one in the other.

The ſecond Demonſtration,

Where in are ſeth forth.

The Sea-Coaſts and Iſlands of Finmarcken, from Sanien to North-Kijn or North-Cape.

Suroy.

FROM the Iſland Tromſound to Surroy, it is eaſt northeaſt ſomewhat northerly 15 or 16 leagues. To the eaſtwards of the Iſland Tromſount goet the in Tromſound betwixt the Iſland Fogelden and Skyfeu, as you ſaile in there you leave the Iſlands Loppen & Loppen-Kalf, lying on the larboard ſide wirhout the oter Iſlands, whitin it are divers Iſlands, Bayes and Sounds, where you may ſaile in and ſeeke Road, as Oxefioert, Biurfioert and more other.

Fogelden. Skyrfeu Loppen and Loppen Kalf.

Betwixt Loppen & Surroy men doe ſail troug Suyerſound & Stiernerſound into the river of Altonbotten, and then betwixt them they leave on the ſtarboardſide Niusfioerd, Oxefioerd and Langefioerd. On the larboard ſide about by the weſtpoint of Suroy, on the land of Sury lyet a haven, where by is alſo a Fiſher village, both called Haeswyke, Suroy is about 10 leagues long, and lyeth on the off-ſide eaſt northeaſt.

Altonbotten. Haeswyck.

Nine or 10 leagues to the eaſtwards of the Iſland Tromſound, about 3 leagues without the land w. n. w. 5 leagues from the weſtend of Surroy lyeth a ſhoale of rock a litle under water. John Huygen of Linſchoten in this ſecont voiage to Nova Zembla, in the Yeare 1595 ſailed with his ſhip upon it in faire weather & ſmooth water, that the ſheating of his ſtemme was beaten of 2 ſhips; but after ſome beating the ſhip turnd of with the ſtrong current. It is to be througt that there lye more then men can ſeen, or as yet are diſcovered.

Showld

About 6 leagues eaſt & by north from the eaſtend of Suroy lyet the Iſland Ingen, betwixt them both lye alſo Reefholme and Ship-holme litle Iſlands, which you may ſaile abouth on both ſides, until under Ingen or Suroy.

Ingen. Reefsholm. Shipholm.

When as you come in betwixt Suroy & Ingen, there lyet thwart of from Suroy towards the other land, a good haven called Hamerfeeſt. A litle further in lye two hig litle Ilands, and over againſt them a road called Slechtnes. Betweene Hamerfeeſt & Slechtnes, before that you get Slechtenes, lyeth a Bay on the land of Suroy, where is good road in 25 or 30 fathom cloſe by the ſhoare. A litle paſt theſe Iſlands on the land of Suroy, over againſt the river of Alten, is a good road called Goeſhop being a fair ſand-bay.

Hamerfeeſt. Slechtenes. Goeſhop.

Between Ingen and the North-Cape or the Iſland Maggereu lyeth Holmsbuy, an Iſland which you may ſa round about, having on the northweſt ſide a Bay cal Akefioerd, where men may make road for ſoutherly a eaſterly windes, on the ſouteaſt ſide is a Bay called Kn wyke, where men may make road, and lye ſheltred f weſterly and northerly winds.

The Nort-Cape is the northermoſt point of the Iſla Maggereu, a litle to the weſtward of it lye the litle Iſlan of Stappen.

On the ſouth-ſide of Maggereu even about the ea point lyeth Keelwyck, a good haven. On the ſame ſout eaſt-ſide, by the ſouthermoſt point of Maggereu lyeth litle Iſland called Altenſolen, the ſound betwixt that I Iſland & the land of Maggereu is called Maggereu-ſoun there is good road and ſhelter for almoſt winds: men m run in throug ſuyer-ſound to the weſtwards Iſlands to t ſouthwards of them, a long throug divers channels to t ſouthwards of Maggereu, and come out againe into t betwixt the North-Cape and North-Kyn.

From the North-cape weſtwards the coaſt lyet along the Iſland weſt and by ſouth about 37 leagues, and th from thence weſtwards falleth a way more ſoutherly.

Of the Tydes & Courſes of the Streames.

Betweene Suroye & the River of Alten a ſ. w. and by weſt, & a and by eaſt Moone maketh high water.

At the North-Cape a ſ. ſ. w. and n. n. e. Moon.

To the weſtwards of the North-cape the ſtreames come out of t n. w. & w. n. w. & fall alongſt Finmarck towards the North-cape.

Courſes of Diſtanſes.

From the Iſland Tromſound to the weſt-end of Suroye, eaſt northe northerly	15 or 16 leag
From the eaſt-end of Suroy to Ingen eaſt and by north	6 leag
From Holms-buy to the North-Cape eaſt and by north	6 leag
From the Nort-cape to Nort-kyn eaſt & by ſouth	11 or 12 leag

Heights.

The North-Cape lyeth in the height of 71 degres 30 minu

F I N M A

Reps fiord

Reffiord

Buaatsond

Tersfiord

Camaksfiord

Kvnnes

Olsfiord

Schultingsfiord

Lanesfiord

Swerholt

Posangernes

Camoe

Noordkyn

Hamerfest

Stroomsond

Lelm

Hoey

Ronysond

REFSBOTTHEN

Maggeroe

Kinafskan

Tonnek

Hawey

Laedoey

Mussoe

Russoe

Noordcaep

Bouwesskaren

Houfskaren

Stoerefkaren

Stappen

Kattarmyck

Ackelsfiord

Refsholm

Ingen

Schulpholm

Goosshop

Finfellting

Meerfhoerd

Suroey

Suver meer

Camck

Sandeu

Dunasfiord

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche mylen 20 in een graet

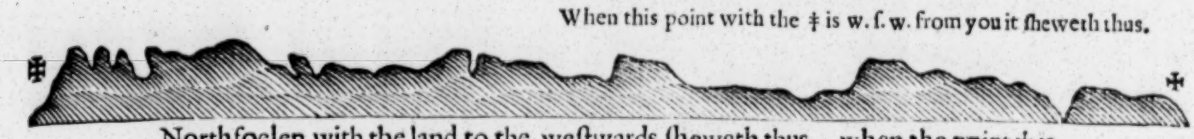
…ac van
…RCKEN.
…en tot Noord-Kyn.
…terdam;
…usz. op't water
…otsman.

R C K E N.

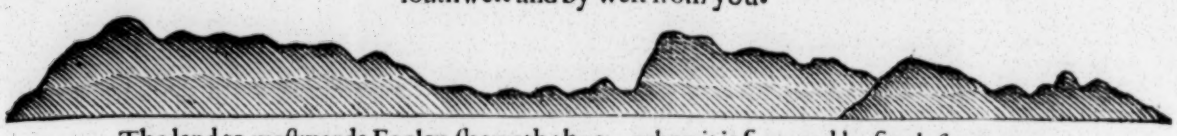
Ouerhaugr
Oxefiord
Burnfiord
Sandvaer
Skiellefiord
Bergsfiord
Ylloe
Vlsesund
Skerfiou
Fogelle
Saanien
I. Tromsond
Tromsond
Norskesund
I. Lappen
Lappen calf
Malanger

How theſe Lands doe ſhew them ſelves at Sea.

When this point with the ✝ is w. ſ. w. from you it ſheweth thus.

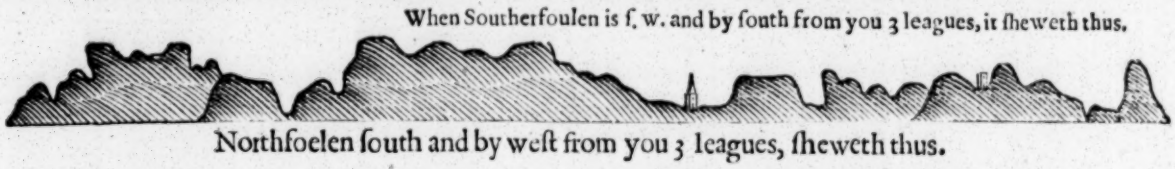


Northfoelen with the land to the weſtwards ſheweth thus, when the point ✝ is ſouthweſt and by weſt from you.



The land to weſtwards Foelen ſheweth thus, when it is ſ. w. and by ſouth from you.

When Southerfoulen is ſ. w. and by ſouth from you 3 leagues, it ſheweth thus.



Northfoelen ſouth and by weſt from you 3 leagues, ſheweth thus.

Shipholm. Iſland without Suroy.



Thus ſheweth Suroy, as you ſaile along by it 5 leagues off.

When as Shipholm is ſ. e. & the Iſland without Suroy is ſouth about 4 leagues from you, then they ſhew themſelves thus.



Thus ſheweth the land Ingen, when it is e. ſ. e. 4 leagues from you.

Road of Ingen.



Thus ſheweth Ingen, when this Hill is one league ſouth and by eaſt from you.



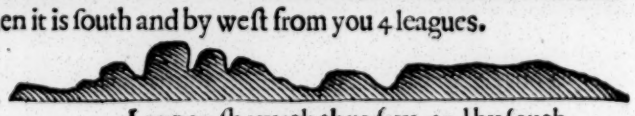
This Hill lying upon the Iſland Lappen, you may ſee over Suroy as you ſaile alongſt by Suroy from the north-end to the ſouth-end.



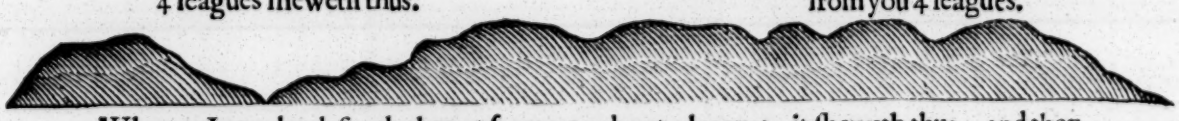
Thus ſheweth the Iſland Lappen, when it is ſouth and by weſt from you 4 leagues.



Lappen ſouth and by eaſt from you, 4 leagues ſheweth thus.



Lappen ſheweth thus ſ. w. and by ſouth from you 4 leagues.



When as Ingen lyeth ſouth thwart from you about 4 leagues, it ſheweth thus, and then Shipholme lyeth ſouth and by weſt from you.

Long-hill.



Thus ſheweth Ingen, when this Long-hill is ſ. w. and by weſt from you.



When Helmſey is ſouth or ſomewhat more weſterly about 3 leagues from you, it ſheweth thus.



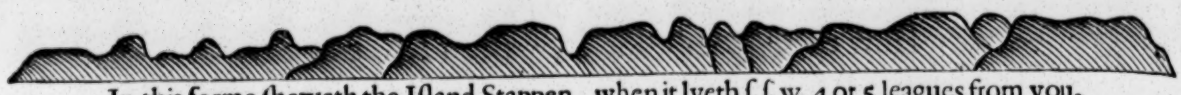
When as Helmſey is ſouth and ſout and by weſt 5 leagues from you, it ſheweth thus.

Helmſey being ſ. w. 7 leagues from you, ſheweth thus.

South ſouthweſt.



Thus ſheweth Helmſey being foure leagues off from it, when the flat hill is ſouth ſouthweſt from you.



In this forme ſheweth the Iſland Stappen, when it lyeth ſ. ſ. w. 4 or 5 leagues from you.



Thus ſheweth Stappen, when it is 5 or 6 leagues ſ. w. from you.



The eaſt-end of Stappen ſheweth thus, when you ſayle alongſt by it.

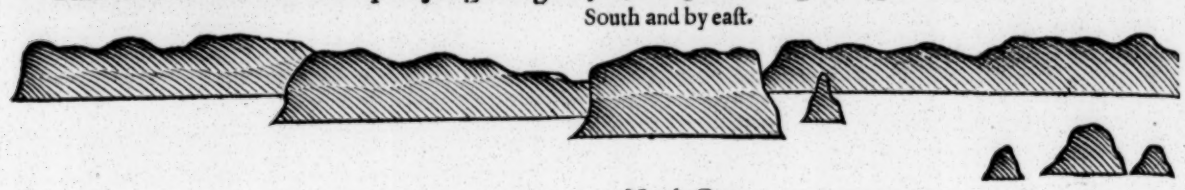
North-Cape ſouth and by eaſt.

The Mother with the Daughters ſ. e. and by ſouth.



Thus ſheweth the North-Cape ſayling alongſt by it, the point being from you as above is ſheweth.

South and by eaſt.



North-Cape.

The North-Cape ſouth and by eaſt from you ſheweth thus.



When the Mother with the Daughters is e. ſ. e. from you, the land ſheweth thus.



When the North-Cape is ſ. e. & the Mother with the Daughters ſ. ſ. e. from you, then they ſhew themſelves thus.



Thus ſheweth the North-Cape ſayling alongſt by it about 3 leagues from land, when you are cloſe by the land, you may ſee the Mother alongſt above the land.

North-Kyn. Mother with the Daughters.



Thus ſheweth the North-cape, when as the Mother with the Daughters ſ. ſ. w. 4 leagues from you, then the North-Kyn lyeth ſ. ſ. e. from you, as is here above demonſtrated.

Southweſt and by ſouth. Southweſt. Southweſt and by weſt.



Thus ſheweth the North-Cape the point being from you, as ſtandeth there above Written, & then you may ſee the Mother from the hatches appeare even above water.



Thus ſheweth the North-Cape, when it is weſt and by north from you, and that you are 3 or 4 leagues without the North-Kyn.

South ſoutheaſt.



Thus ſheweth Noth-Kyn being ſ. ſ. e. 8 or 9 leagues from you, then lyeth the North-Cape 9 or 10 leagues ſ. ſ. w. from you, and between both you may ſee yet more land in the ſ. ſ. w.

The third Demonſtration,

In Which are ſhewed

The Sea-Coaſtes betweene the North-Cape and the River of Kola.

North-Kyne.

EAST and by ſouth about 11 or 12 leagues from the North-cape lyeth North-kyne. From North-kyne to Tannebay it is e. ſ. e. 10 or 11 leagues, between both, it is all a cleane Coaſt, without Rockes or foule grounds, hig ſteepe craggie land, without any ſtrand.

When as you come ſailing alongſt paſt North-Kyne, towards Tannebaye, you ſhall meete firſt with the point of Slechtnes, a plaine point lying out, verye eaſy to be known: and then Omega a Fiſher village, ſtanding on the Sea-ſide, even there to the eaſtwards of it goeth in the Tannebay, which is a great deepe Rivier which lyeth in firſt ſouth, & afterwards ſouthweſt, farre within the land, & doth devide it ſelf in two parts, at the mouth of the River, it is at leaſt two leagues or more broad, & all over verye deepe. He that is bound into the Tannebay, muſt run in

de Cuſten van

NOORWEGEN,

en Laplandt, vande Noord-kyn tot aen de Rivier van Kola.

't Amſterdam.

By Iacob Theuniſz. opt water inde Lootsman.

SAPSAND

Petzinjamon

Stoyen

Vaßchers Eylant

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng en Fran mylen 20 in een graet

NOORWEGEN.

Dieſholm

Het Eylandt

Slot

Warhuys

O O R W E G E N

Wurangger

Kybaer

Pamees ness

Blanhed

Hammingsberg

Sultzfioort

Dronthfioort

Kongsfioort

Hasp

Kynnes Noordt Laun

Canos

Skenens

Lanchyer

Ommyangs

Fiamef

Vendomark

in alonghſt by the weſt ſhoare, becauſe he muſt lye by the weſt ſhoare, on the eaſt-ſide is no road or place where men may anchor.

On the foreſayd weſt-ſide are manie poynts and bayes to ſee to as if they where roads, but you muſt ſayle paſt them all ſo long, untill that you ſee on the ſame weſt ſhoare two rounde hill, where upon ſtandeth a Wardes a little paſt that ſtand ſome Fiſhermens Houſes, upon a low hommock, thwart of theſe Houſes runneth off from the land a low flatt poynt, you muſt runne in behind that poynt, and anchor before thoſe Houſes, with an anchor to ſeawards and a hauwſer faſt on the land.

Mar-korf. A little to the eaſtwards of Tanne-bay lyeth the poynt and the land of Matkorf, from thence to Wardhouſe the coaſt lyeth ſoutheaſt and by eaſt ſoutheaſt, and moſt ſoutheaſt and by ſouth 16 leagues, betwixt them there is much high plaine land. Halfe wayes betwixt both, but neareſt Wardhouſe, lyeth a high hommock upon the high land, to ſee like a Caſtle or Countrie Houſe, verie eaſy to beknowne, beingh thwart of it cloſe by the land, it ſeemeth as if there where a great Sound, where men might ſayle into Wardhouſe are three little Iſlands with ſome little Rocks alſo by them, the ſouthermoſt the greateſt of the three, which onely is inhabited, upon it is a village of about 300 Norway Houſes with a caſtle, it is about a half league long, and lyeth an Engliſh myle off from the land, lying as the Coaſt moſt ſouth and north, betwixt both, it is all over deep water. On the ſouth-ſide of this Iſland lyeth a haven or great baye about half wayes the Iſland, and likewiſe one alſo on the north-ſide, ſo that theſe two bayes doe come ſo neare one to the other, that there remaineth no more then a narrow chindle ſtrand about a ſtone caſt broade, dividingh ſo the Iſland almoſt into two, the eaſter-moſt part is the ſhorteſt and higheſt, the weſtermoſt is the longeſt. Cloſe upon the ſtrand, on the eaſt-ſide of the ſouther haven lyeth the Caſtle, to the northwards of it, upon the foreſayde chindle ſtrand, and about the Baye ſtand the Houſes. In the ſouther Bay it is good lying, but the beſt road is betwixt the maine land and the Iſland about halfe wayes on the ſide of the Iſland againſt a Sand bay, and right againſt the Caſtle, there is good anchor ground, in 10 or 12 fatum landlockt for all winds, except for north and ſouth winds, which blow there right through, yet men have ſome ſhelter of ſome poynt of the Iſland. Men may without feare come in there, betwixt the Iſland and the Manie, either from the ſouthwards or the northwards, it is all over cleane and cleare, but he that commeth in from the northwards, muſt runne ſomewhat nearer the Rock, where the gallowes ſtandeth upon, then the Iſland, becauſe there abouts the Iſland is a little ſoule.

Ward-houſe.

About a ſhot of a caſt peece northwards from the greateſt, lye the two ſmalleſt cloſe one to another, ſeemingh a farre of to be one Iſland, are together not an Engliſh mile longh, but high and rocky to ſee to, there lye alſo two or three rocks by them.

On this Coaſt like as at the North-Cape a northeaſt and ſouthweſt Moone maketh high water.

From Wardhouſe to the poynt of Kegor or the Fiſhers Iſland, the courſe is ſ. e. and by ſouth 10 leagues.

Betwixt them both is a great baye, where in are divers Sounds and Rivers, amonghſt other, the River Pitſingh, which is a great faire and large River, where men may goe in with great ſhipps, a good wayes within the river is good road, there is taken & laden much Sammon, but there fall no other ſpeciall wares. South ſouthweſt from the poynt of Kegor lye two Ilands, to the ſouthwards of them men doe runne into Monnickforde.

gor or ers nd. Kegor is a fayre haven, lyingh at the north-end of the Fiſhers Iſland, a little without the poynt; There lye two or three rocks at the north poynt of the haven, and alſo a ſuncken rock in the middeſt of the havens mouth; you leave the ſuncken Rock, with the other Rocks on the ſtarboard ſide of you, and runne in by the ſouth ſhoare and edge then behinde the foreſayd rocks, and anchor there in ſeven or eight fathom, the havens mouth lyeth in ſouthweſt, it is there ſo good lying as in any havens there abouts on the coaſt.

Easter-gat. The Danes call this haven Easter-haven, there was wont to be the Staple of the Fiſh, where every one muſt come to buye: there fore the Iland is yet called, where on Kegor lyeth the Fiſhers Iland.

It is indeede no Iland, but very neare: it is faſt to the maine land, with ſuch a very ſmall neck, that the Ruſſes, which come from Kilduyn, or the River of Kool, and are bound to the River Pitſing, doe goe alonghſt within this land, and hawle their boater over that ſmall neck, for not to goe about a ſeaboard.

Laus. From Kegor to Laus, the courſe is alonghſt the ſhoare ſoutheaſt and by ſouth, ſomewhat eaſterly nine or ten leagues. This is a right playne coaſt, without points or bayes, all alongſt by Laus to Tiepena, but the ſouth point of Laus lyeth out a little, upon which ſtand two Warders, to the northwards of that poynt is the haven of Laus, a fayre ſand-bay, there is every eaſy lying for ſouther or eaſterly winds, but not for northerly winds, the winds betweene the northermoſt and northeaſt doe blowe there open in, and make there in a very great hallow Sea, men lye there in twelve, tenne and eight fathom, according as they runne farre in, the farther the ſhoaler, but alle cleane riſing ſand-ground.

From Laus a little towards Kegor lyeth a little Iland, behinde which is good anchoringh for eaſterly winds, in cleane ſand-ground, but it is ſomewhat narrow.

Tie-pena. From Laus to Tiepena, it is a great half league, at the poynt lye ſome little rocks, but you cannot ſee them, before you be cloſe to them. Tiepena is a fayre haven, when you come from the northwards, you muſt runne ſo farre to the ſouthwards, alongſt by the ſhoare, untill that you ſee open into it, and ſayle in amidſt the channell. When as you come from the ſouthwards, the haven openeth it ſelfe, being come in, you muſt edge up to the northwards, and anchor there, there you lye landlockt for all winds, there are no dangers which may hurt you, but it is over al cleare & cleane ſandy ground.

Ko-wens. A little about the poynt, to the ſouthwards of Tiepena, which is on the ſ. w. ſide of the Fiſhers Iland is another faire haven, where men may goe to anchor, called Kowens.

From Laus to the River of Kola, the courſe is ſouth and by eaſt and ſouth ſoutheaſt about tenne leagues. But Kilduyn & Laus lye ſoutheaſt & by ſouth, ſomewhat eaſterly and northweſt and by north, ſomewhat weſterly alſo tenne leagues aſunder.

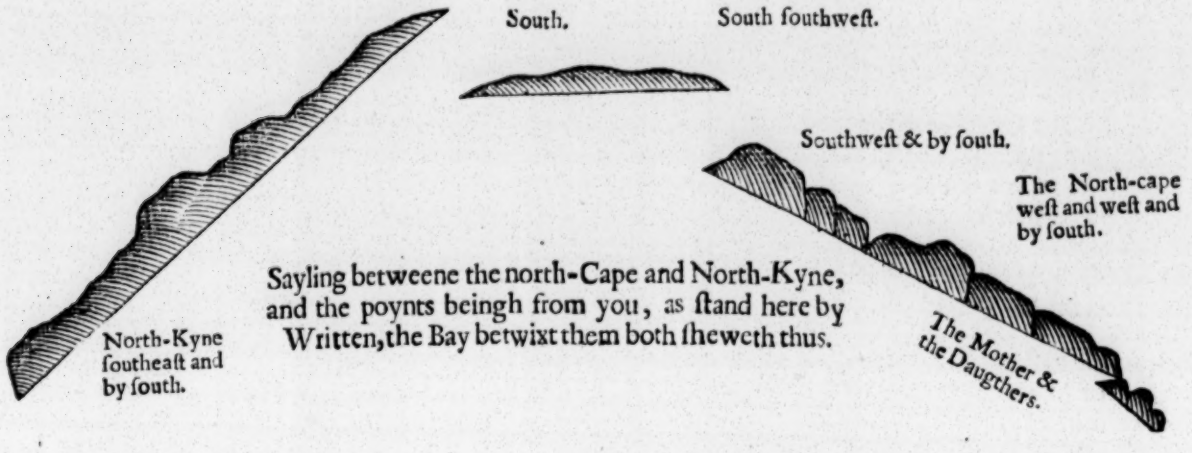
Of the Tydes & Courſes of the Streamus.

At the North-Cape a Southweſt Moone maketh high water.
Thwart of the Tannebay a ſouthweſt Moon maketh high water.
At Wardhouſe a ſouthweſt Moone maketh high water.
On this coaſte like as at the North-cape a northeaſt and ſouthweſt Mone maketh high water.
Alongſt theſe coaſts of Lapland to the eaſtwards of North-Cape, the flood commeth out of the northweſt and north northweſt, and ſo runneth alongſt the land unto Orlogens.

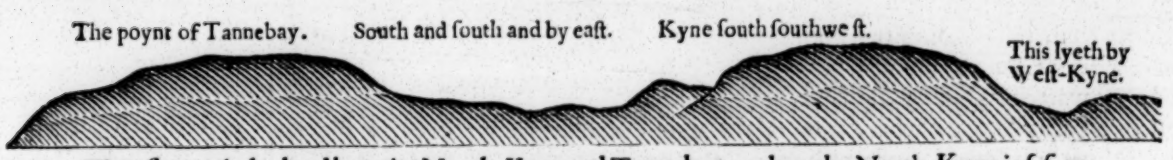
Courſes and Diſtances.

From the North-cape to the North-kyne, eaſt & by ſout	11 or 12 leagues
From the North-kyne to the Tannebay e. ſ. e.	10 or 11 leagues
From the Tannebay or Matkorf to Wardhouſe, ſ. e. & by e. ſ. e. and ſ. e. and by ſouth	16 leagues
From Wardhouſe the poynt of Kegor ſoutheaſt and ſoutheaſt & by ſouth	10 leagues
From Kegor to Laus ſ. e. and by ſouth eaſterly	9 or 10 leagues
From Laus to the River of Kool ſouth and by eaſt, and ſouth ſoutheaſt	10 leagues
From Laus to Kilduyn, ſoutheaſt and by ſouth eaſterly	10 leagues

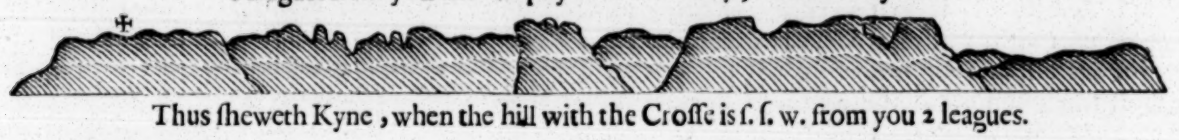
How theſe Lands doe ſhew them ſelves at Sea.



Sayling betweene the north-Cape and North-Kyne, and the poynts beingh from you, as ſtand here by Written, the Bay betwixt them both ſheweth thus.



Thus ſheweth the land betwixt North-Kyne and Tannebay, when the North-Kyne is ſ. ſ. w. 8 leagues from you and the poynt of Tannebay, ſouth and by eaſt.



Thus ſheweth Kyne, when the hill with the Croſſe is ſ. ſ. w. from you 2 leagues.

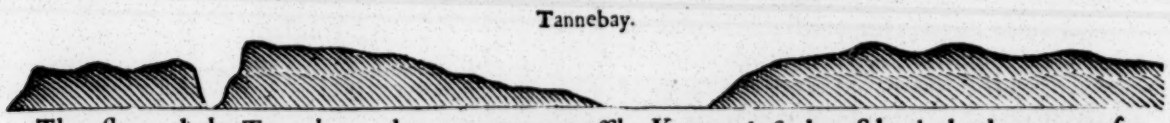


Thus appeareth the Mother.

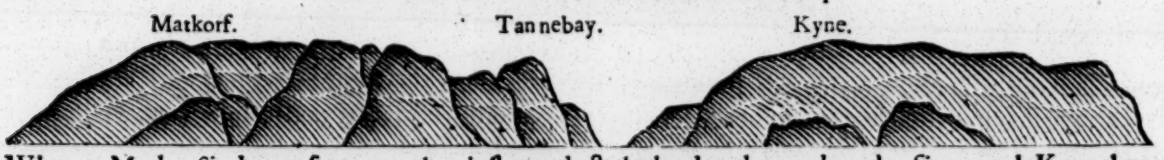
When this hill with the Croſſe is ſouth and by weſt from you 2 leagues, then ſhewet Nort-kyne thus.



Thus ſheweth the land betwixt Kyne and Tannebay, when you ſayle alongſt by it 7 or 8 leagues without the land, Kyne being ſ. w. and by weſt from you.



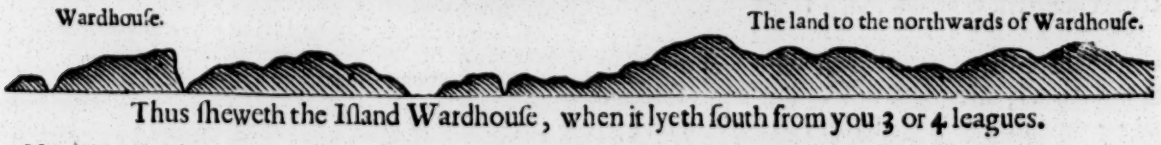
Thus ſheweth the Tannebay, when as you come off by Kyne, cloſe alongſt by the land, you may ſee theſe two poynts on againſt the high Innerland, the eaſt-poynt ſheweth it ſelfe, almoſt like Portland, the weſt-poynt ſheweth it ſelfe firſt ſloping, but when you come by little before the Sound, then it will be alſo ſteep.



When as Matkorf is thwart from you, then it ſheweth, & the land to the nordwards of it towards Kyne thus.



Thus is the land to the eaſtwards of Tannebay, when as you ſail alongſt by it 3 leagues without the land.



Thus ſheweth the Iſland Wardhouſe, when it lyeth ſouth from you 3 or 4 leagues.



In this forme ſheweth the Iſland Wardhouſe, and the land to the northwards of it, when it is ſ. ſ. w. a league and a halfe or two leagues from you.



Thus ſheweth the land and the Iland Wardhouſe being w. n. w. from you 3 or 4 leagues.

Thus

Het eylant Kildwyn met de Rede na't leven ontworpen leggende opde hoogte van 69 gra. 40 min.

LAP-LANT.

Een Duytsche mijl
Een Spaensche mijl
Een Eng. of Fran. mijl

Overhael

Dese eylyt leyt met hooge water boven

LAPL

De eylanden van Sherkenes

Klemsk

Evenskrijse

Vanckstyr Vogel eylant

Sherkenes Sherkenhoeck

De Skipper

De Seven Eylan den

Duytsche mylen 15 in een graet
Spaensche mylen 17 1/4 in een graet
Eng. en Fra. mylen 20 in een graet

de Rivier van
KOLA
in 't groot besteck.
't Amsterdam,
By Iacob Theunisz opt
water inde Lootsman.

Een Duytsche mijl
Een Spaensche mijl
Een Eng. of Fra. mijl

Kola

A N D T

Runde

Tierebierg

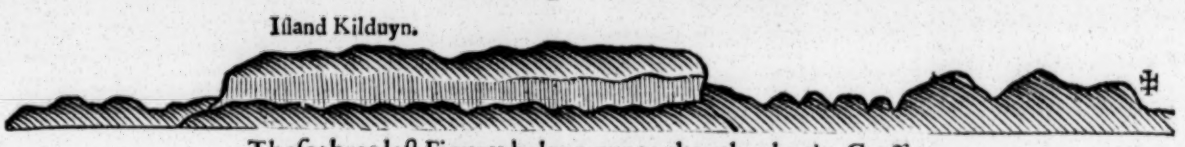
Evl Kilduyn



Thus ſheweth the Land of Kegor to the Fiſhers Iſland, when as you ſayle alongſt by it 4 or 5 leagues without the land.



Thus ſheweth the Land of Kegor or Fiſhers Iſland, when as you ſayle alongſt by it coming from the weſtwards.



Theſe three laſt Figures belong one to the other by the Croſſes.





Thus ſheweth the Iſland Kilduyn, and the Land to the northwards of it in the Bay towards Fiſhers Iſland, when as you are betwixt them both 7 or 8 leagues from Land, Kilduyn being about ſouth or ſouth ſouthweſt from you.

The fourth Demonſtration,

Where in are Deſcribed

The Sea-Coaſtes of Lapland betweene the River of Kola and Iſlands Swetenoes.

The River of Kool.

FOR to ſayle up into the River of Kool of Kola, you muſt goe from Laus, or the ſound-end of the Fiſhers Iſland towards the River ſ. ſ. e. and ſouth & by eaſt, run about by the hig land of Podenwolck, and then the River ſhall open it ſelfe very wide. When you are by the point of Laus, you may ſee the Iſland Kilduyn, & the River of Koole, or the land by it: Betwixt Laus and the River of Koole, is alſo a great Baye.

When as you are in the mouth of the River, it lyeth in firſt ſouth and by weſt, and then ſ. ſ. w. to that Iſland which ſtandet marked with *A* in the Carde of this River, & then by little and little ſ. w. and by ſouth, alongſt by the Iſland marked with *B* unto the Trayne Iſland then ſouthweſt and by weſt, and by little and little about the poynt weſt and by ſouth, afterwards in weſt, unto Divels point, over againſt it lyeth the White ſtone, which lyeth upon the land, thwart of it is good roade. From thence againe weſt and ſouth, w. ſ. w. and ſ. ſ. w. unto Kool.

Roade the River.

When as you come into the River, and will ſeeke roade there, you muſt keepe alongſt by the weſt-ſhoare, being ſomewhat within, you ſhall ſee a little Iſland lying cloſe by the ſhoare: from thence ſomewhat further about the hig poynt is a Bight or Baye, and in that Bight a Sand-baye, where men may ſave a ſhippe without Anchor or Cable, that is a fayre Sand baye, where men may runne in all alongſt.

Alongſt by the north-ſide it is five fathom deepe, and cleane Sand-ground, men runne in there betwixt the two poyntes, but there lyeth a black Rock in the narrow, betwixt both ſhoares, which they muſt leave lying on the ſtarboard-ſide, within that Rock it is three and two fathom deepe unto the ſtrand, within there is fayre greene fields.

A little without the Baye lye two Iſlands, where of the outermoſt or eaſtermoſt is the ſmalleſt. When as in ſayling up alongſt the River, you may come by theſe two foreſayd little Iſlands about halfe wayes to the Iſland marked with *A*, there is alſo good roade, at the weſt-ſhoare, you ſhall ſee upon the hig land three Warderes called the three Kings, thwart of them is the roado. Roade three Kings.

When you are ſomewhat paſt the Iſland *A* you cannot ſee the River any more open, but it ſeemeth to bee ſhut, and cloſe, for that Iſland by *A* commeth, then under the hig land, on the eaſt-ſide.

Under the Iſland marked with *B* is alſo good road and cleane Sand-ground. Roade.

Likewiſe is alſo good road under the Trayne Iſland, that is reckoned for the halfe of the River, to witt of from the mouth of Kool.

When as you come now a little paſt the Trayne Iſland, where the *C* ſtandeth, then you ſhall ſee out a head black blewe hill, called the Divels-hill, it ſeemeth there, as if the River where cloſe and ſhut. It is beſt ſayling alongſt by the ſtarboard-ſide, there you have moſt all ground cloſe by the land. There are many Bights, poynts, and Bayes, which are not all to deſcribed. Divels hill.

On the other ſide men doe not come ſo commonly, (except it be againſt their wills) there ſeeme alſo to bee many bayes and roades, and alſo ſome little Rivers. Where as you come alongſt by the Divels-hill where the *D* ſtandeth, paſt the White ſtone, then you may ſee the Klinck-hill on the weſt-ſide, and allmoſt alonghſt unto Kool. When as you may ſee the Klinck-hill, there is ground by the weſt-ſhoare for to anchor in; then there are on both ſides no dangers, but when as you come ſo far into the place, where the letter *E* ſtandeth marcked, there you muſt ſomewhat ſhunne the weſt-ſhoare, becauſe of a little ſhoale which ſhooteth of from the ſhoare, and keepe in the middle of the channell, untill that you come againſt the Klinck-hill, there you muſt againe goe cloſe alongſt by it, in the middeſt of the fareway lyeth an Iſland of Rocks, which at high water is covered, where of you muſt take good heed. Klinck-hill. Rocke.

From the Klinck-hill unto the Robben Iſland ſayle all alongſt by the weſt-ſhoare, the Robben Iſland is alſo covered at high water, but when it is under water, then anchor thwart of the burnt trees. Thwart of the Robben Robbe Iſland.

Iſland lyeth a very great Rocks, as ſone as you are thwart of the high land, looke out carefull for it, keepe without it, or to the northwards of it, to with a bow ſhot, there is the roade, there you may anchor by the ſhoare ſo ſhoale as you pleaſe, it is there good lying, and there you begin to ſee Kool alongſt by the houſe. Betwixt the Iſland Kilduyn and the River of Kola, ſomewhat nearer the River then the Iſland, lyeth a haven, called Bliesna Silenſi, that is to ſay, the next to Silenſi, there you ſayle in by a round reddiſh Hommock, being come within it, you muſt edge up to the weſtwards, ſo that the haven is altogether ſhut, and that you can ſee no Sea, you may anchor there ſo deepe or ſhoale as you will, it is there every where cleane white ſandy ground, and ſomewhat oazye and ſoft, there you may alſo without feare ſayle on againſt the ſhoare in the oazy, and may ſave a ſhippe without anchor cables.

Bliesna Silenſi.

Kilduyn.

The Iſland Kilduyn is about two leagues long, and one league broade, & lyeth w. n. w. & eaſt ſouth-eaſt alongſt the land, like as alſo the channell betwixt the Iſland and the maine land, which is at ſome places about a halfe leagues broade, and at ſome places, narrower, but all over very deepe and cleane. About the middeſt, yet neareſt the eaſt-end, is a faire cloſe road, betwixt two poynts, that lye out towards the mayne land, there men lye under the Iſland, cloſe to the ſhoare, before the Laps tents, under the eaſtermoſt-poynt, which is a low playne poynt, in twelve, thirteene or fourteene fathum, ſandground, more to the ſouthwards it is very deepe, you ſhall ſoone have fifty and ſixty fathum.

For to go in to Kilduin from the weſtwards.

If you will goe to anchor under Kilduyn comming from the northwards or the weſtwards, then runne about by the weſt-end, in betwixt Kilduyn and the mayne land. When you are come ſomewhat within, you ſhall eſpy a little round Iſland, there the Channell beginneth to be narrow, yet it is broade enough for to turne to windwards through, ſayle forth towards the ſoutheaſt-end, untill you come in betwixt thoſe two poynts, and run to the foreſayd low poynt, and anchor there within the bight, before the cabbens ſo neare to the lands as you pleaſe, there you lye land-lockt for all winds, as if you lay within a Towne in a cloſe Haven.

For to ſayl in to Kilduyn from the eaſt wards.

For to ſayle in from the eaſtwards, you muſt ſayle in to the weſtwards by the eaſt-end, ſo long untill that you come by the foreſayd low poynt of the Iſland, then edge up about it to the northwards, & runne into the foreſayd Bigt, before the Cappens, and anchor there in 12, 13 and 14 fathum, that is the chiefeſt roade.

At the north and eaſt-end of Kilduyn, betwixt the Iſland and the mayne land, there is alſo a very good roade, in eight, tenne or twelve fathum, where men may lye ſheltered for all winds. There abouts is on the Iſland a good water place, there the water commeth run in off from the high land, there men may goe lye by it and fill their caskes lying in the boate.

You may alſo anchor under the mayne land, betwixt the narrow, and the Roade of Kilduyn, at the place where the anchor ſtandeth marked, in the Carde. At the eaſt-end of Kilduyn lyeth alſo a Fiſhers village, called Kammen, at a high poynt, which is called the Sacrifice-poynt.

From the Iſland Kilduyn to the poynt Tyribiry, the courſe is ſoutheaſt and by eaſt about 5 leagues, betwixt them is a great Bay. In this Bay, a great league from Kilduyn lyeth a high Iſland called Bliesna Olinie, which is the next or the neareſt Olinie, behinde it, under the mayne land, neareſt the ſouth-end of the Iſland is a good road, where three or foure ſhips may lye very well.

Bliesna Olinie.

There lyeth a round hill, or high Hommock upon the mayne land, which ſheweth out above all the other Hommockes, and is very eaſy to be knowne, upon which ſtandeth a high croſſe of two croſſes one above the other to the northwards off it lyeth a flat poynt, thwart of it lye ſome Rocks alongſt the ſhoare, which at high water are covered.

At the ſouth-end of the Iſland Olinie, a little from land, lyeth a Rock allmoſt even with the water, but you may alwayes ſee it well by the breaking of the water.

To the Northwards of the Iſland about an Engliſh myle, lyeth a Rock not farre from land, and alſo to Seawards from it a ſuncken Rocke, which you cannot goe over at low water.

Hee that will (comming from the northwards) goe to anchor behinde Olinie, muſt runne a good wayes to the eaſtwards this foreſayd Rocke alongſt to the northwards of the Iſland, for to avoyd the foreſayd Rocke being come behinde the Iſlands, you ſhall eſpy the foreſaid round hommock with the croſſe, you muſt not runne paſt the croſſe, but leave it on the larboard ſide, and ſayle in cloſe by it for to agoyd the foreſayd Rockes, which lye off from the flat north-poynt, the poynt with the croſſe is very cleane and ſo ſteepe, that you migt lye with a ſhip on againſt the ſhoare without any hurt.

He that will come into this Road from the ſouthwards, let him run alonghſt by the coaſte, which is very cleane, untill paſt the foreſaid poynt with the croſſe, and edge up cloſe about by it, as is beforeſayd.

Men doe anchor within the poynt in ſeven, ſixe, five, foure and three fathom, deepe or ſhoale as they will, there goeth no grown Sea at all.

About halfe wayes betwixt the Iſland Olinie and Tiribiry is another haven or great Bay, where men may lye landlokt for all winds.

Tiribiry

Tiribiry is a great River and off-water, where is a great Sammon fiſhingh, there men may goe in with great ſhippes, and anchor every where within it where they will in good ſandy-ground, it lyeth in moſt ſouth, and afterwards more weſterly, the eaſtermoſt poynt lyeth out more to Seawards then the other, ſo that it maketh a bay, where men ride under for a northweſt-winde.

Two leagues to the ſouthwards of Tiribiry lyeth Waronia, which is a great ſand-bay or haven, which at the mouth is narrow, but within it is a broad Sound, there is alſo an off-water, where is alſo much Sammon caught.

Withtn this bay it is every where good anchoring ſhoale water and cleane ground.

Before the mouth of this haven lye three little Iſlands, behinde them it is alſo good road.

Two leagues or two leagues and a halfe to the ſouthwards of Waronia lyeth a Gabriele, a tyde haven, which falleth dry within, ſo that men may goe over there dry at low water, it floweth there 12 foot up and downe, a ſ. ſ. w. Moone maketh high-water on this Coaſt.

In the mouth of this haven lye three Iſlands, two on the north-ſide (which are the loweſt) and one on the ſouth-ſide, that is the higheſt, you muſt runne neareſt the ſouthermoſt when as you will ſayle in there: beingh come within the Iſlands, you muſt edge up to the northwards behinde the two northermoſt Iſlands, and anchor there on the north-ſide of the haven, there it is 7 and 8 fathom deepe cleane ground.

About a league to the ſouthwards of it lyeth Salenſi Daelna, that is to ſay, the fartheſt Salenſi; but betwixt them both a little to the northwards of Salenſi, lyeth yet a great in-draught which lyeth in at leaſt two leagues into the land, and is about ſo wyde as the River Tye before Amſterdam, there may lye a great multitude of ſhippes, it is there broade and large enough, and all over good anchor ground.

A little to the northwards of this in-draught lyeth a little Iſland, or Rock, ſomewhat high, about which you may ſayle within, to witt, through betwixt theſe Rockes and the land, but may make no road under them.

Salenſi Daelna is a great broad Bay, before it lye three Iſlands, which are to ſee to gray of colour, as the mayne Land.

To the northwards of theſe Iſlands upon the poynt of the Bay ſtandeth three great Wardes, and a little to the ſouthwards of the Iſlands, on the mayne Land lyeth a ſteepe hill, by which markes this Bay is very eaſy to be knowne.

If you will ſayle into this bay commingh from the northwards alonghſt the ſhoare by the foreſayd great in draught, a little to the northwards of this Baye, you muſt looke out for theſe foreſayd great Warders, leave then on the ſtarboard ſide, and ſayle in cloſe by them, through betwixt that poynt and the Iſlands, firſt weſt ſouthweſt, ſomewhat within, and then more ſoutherly, untill behind the Iſlands ard

and anchor there in 5, 6 or 7 fathum: you may alſo ſayle further to the ſouthwards: into the baye, ſo deepe as you will, there is all over cleane.

When you come before the channell, it ſeemeth to bee very narrow, but is broad enough.

To the ſouthwards of theſe Iſlands is alſo a channel which is very narrow, but yet for need you may ſayle out there. The ſouthermoſt Iſland, that is, where upon the Fiſhermen dwell, is faſt to the northermoſt with a ſhoale, where upon is at hig water 10 or 11 foot water, but at low water you cannot goe over it.

Daelna Olinie. Two little leagues to the ſouthwards of Salenſi lyeth the Iſland Daelna Olinie, that is to ſay, the Furtheſt Olinie, it is an Iſland almos of Faſhion like Bliesna Olinie, at the north end high, at the ſouth-end lower, and upon the end very ſteepe, it hath in the middeſt, (but ſomewhat neerer the ſouth-end then the north-end) a low valley, where at high water the Sea doth almoſt run alongſt over it.

Behinde this Iſland, nor under the Iſland, but under the maine lands, are good roades.

For to come in from the northwards behind this Iſland it is a broad, large, and very deepe Channell, without any dangers, but if you will ſayle in behinde it) from the ſouthwards) then you muſt runne in cloſe by the Iſland, for to avoyde a foule and ſtony riffe, which lyeth off from the maine land, halfe wayes to the Iſland, and ſo ſhoale that it falleth dry with the ſpring tydes at low water.

About halfe wayes the Iſland, neareſt the ſouth-end, is a point, lying out from the maine land, towards the Iſland, to the nordwards of it men doe anchor in 6, 7 or 8 fathum.

When you come in from the northwards, you may (ſo ſoone as you come within the points) luffe up towards cloſe about the point of the main land into a bay, and anchor there in 8, 6, or 4 fathum, according as you ſayle far in, there is very eaſy lying. In theſe roades under the maine land, it is all cleane one flat riſing ground, but under the Iſland is deepe, and the grounds riſing very ſteep, and therefore it is not good anchoring there.

Betwixt this Iſland Daelna Olinie, and Silenſi, lye 3 little black Iſlands, where is very eaſy road under them in 8, 7 and 6 fathum.

Rinde. From Daelna Olinie to Rinde are 5 leagues. Rinde is a very faire Haven, before it lye foure little Iſlands, where men may goe to anchor behinde them, behinde theſe Iſlands this haven hath two bayes, upon the point betwixt them both ſtandeth a great Croſſe, the ſouthermoſt baye is farre the greateſt, into it commeth alſo a river or offwater, where men doe catch Sammon. The middlemoſt Iſland (which is the northermoſt ſave one) is the greateſt and higheſt, upon which ſtandeth a great Warder, the northermoſt is ſomewhat long and ſmall, and ſo low, that at hig water the Sea runneth up a good wayes upon it on both ſides, and ſo maketh that Iſland ſmaller.

Betwixt that Iſland & the maine land, or the north ſhoare of the Havens-mouth lyeth a ſuncken Rock, which you muſt leave, in comming in, on the larboard-ſide, and runne in cloſe by the main land, this channell is ſo narrow, that you cannot ſaile in it, except you have a large wind, at low water there remainet no more then 9 or 10 foot water.

To the ſouthwards of that great Iſland, lyeth another Iſland that is indifferent high and the ſouthermoſt of them all, betwixt that and the poynt of the maine land, lyeth in the ſouther channell, which is broad and deep enoug, but when you ſayle in there, you muſt run neareſt the land, for to avoyd a ſunck rok which lyeth at the foreſaid point of the mayne land.

Theſe channells both from the ſouthwards and from the northwards lye in both a alongſt the ſhoares, when as that you come then within the Iſlands you may anchor there all over where you will, there it is broad and large, and every where cleane and cleare. Men doe anchor commonly under the greateſt Iſland thwart of the great Warder, and alſo behinde the northermoſt Iſland 5, 4 or 3 fathum, there it is very eaſy lying, but with a ſoutheaſt winde, the Sea commeth a little rowling in, but there can goe nog reat Sea.

Faire within the ſouthermoſt bay, almoſt before the river, lyeth a rock, but above water. Without the greateſt and the ſouthermoſt Iſland, lyeth a little Iſland, or great rock, ſomewhat round, you may ſayle out and in betwixt the ſouthermoſt and the greateſt Iſland, alongſt to the northwards of that little round Iſland, that is you muſt leave the ſouthermoſt Iſland with the outermoſt litle round Iland both on the ſtarboard-ſide, and the greateſt Iſland with the Warder on the larboard-ſide, when you ſayle out, this is a very narrow channel; but very cleane and cleare, ſo that there is nothing to be avoyded, but onely a little ſuncken Rock, which lyeth at the north-end of the outermoſt little round Iſland, and falleth dry at low water; nevertheleſſe it is not good to uſe it, except it were for need that you could not doe better.

He that is bound into this haven, muſt run cloſe alongſt by the ſhoare for to get ſigt of the foreſayd Iſland, for by reaſon that the inner land is hig; the Iſlands lye ſo under the land, that men can hardly ſee them, when they be any thing far off from the ſhoare.

A halfe league to the ſoudwards of Ride is another great Bay, or Haven, before it lye two little hig Iſlands upon the northermoſt ſtandeth a great croſſe, you may ſayle in there about on both ſides of theſe little Iſlands, and alſo throug betwixt them, and anchor were you will in 15, 12, 8 or 5 fathum deep or ſhoale, according as you ſayle farre in, and lye there ſheltred for all windes, but when the winde is hard out of the Sea, thwart upon the ſhoare, there will come in ſomewhat a rowlingh Sea, but there can goe no great Sea that can hurt you. A little to the northwards of this Haven lyeth a low long Iſland cloſe to the ſhoare, whereby you may alſo know this Coaſt, you may ſayle throug betwixt this foreſaid Iſland and the maine land without any danger.

From this Haven to the Seven Iſlands are 4 great leagues. A little to the northwards of the end of the ſeven Iſlands, lyeth a fayre great ſand-bay, where is alſo good anchoring for ſoutherly and ſ. e. winds, but not for eaſterly winds, with a n. e. or Sea wind, it is bad lying there, for there is no ſhelter for them, men doe anchor there in 20, 15 or 12 fatum, according as they lye far or neare to the ſhoare. Golden Bay. The Ruſſes call this Bay the Golden Bay, becauſe the ſtrand is of red Sand.

On all theſe foreſaid caſts a ſ. w. and n. e. Moone make hig water, like as on the former.

Seven Iſlands. The Seven Iſlands lye all of them alongſt the ſhoare, the firſt or northermuſt is farre the greateſt of all, a hig Iſland. The foure northermoſt follow cloſe one to the other, and lye about an Engliſh mile, or a ſhot of a caſt pece, a little more or leſſe of the land, ſo that men may ſaile there throug betwixt. The fifth is a little round Iſland, and lyet nearer to the land, there you cannot runne throug within it, which is faſt to the land with a ſhoale of rocks, whereof ſame lye above, and ſome under water. The two ſouthermoſt lye a good wayes to the ſouthwards of the fifth. Betwixt them and the maine land you may alſo ſaile throug, you may alſo runne throug in and out betwixt theſe ſand Iſlands every where, except betwixt the ſecond and third off from the northwards betwixt them both it is fowle.

The firſt Iſland. Betwixt theſe Seven Iſland and the maine land, goeth a ſtrong tyde, as well of flood, as of ebbe, where of men muſt be very carfull.

Betwixt to northermoſt and the mayne land is a good road (thwart of the ſouth-end of the Iſland) under the mayne land, there is a fayre ſandbay, with an offwater, where is much Sammon to be caugt, but it is not there uſed.

A little to the northwards of this Sand-bay lyeth a little Iſland betwixt the great Iſland and the coaſt, men doe anchor to the ſouthwards of that little Iſland, thwart of the ſand-bay in 7, 6 or 4 fathum, ſo ſhoale as they will, there is a very even ſand-ground, riſingh ſo even as if it where planed.

Over againſt the foreſayd bay men may make road under the ſouth-poynt of the Iſland, twart of a little bay, there they bring a hawſer on land, & an anchor to Seawards in 19 fathum, there they lye ſomewhat more out of the tyde then in the bay over againſt it.

Betwixt this great Iſland and the coaſt is obout two third parts of the channell towards the mayne land, flat riſingh

ground, and the other third part towards the Iſland Deep; the neerer the Iſland the deeper unto 18 and 19 fathom.

About halfe wayes betwixt that foreſayd little round Iſland, and the north poynt of the greateſt Iſland ſtand on the main land ſome little Lappiſh houſes, or a little village.

Second & tird Iſland. Betwixt the ſecond and third Iſland, or neareſt thwart of the ſecond, to tell from the northwards, lyeth yet a little village, thwart of it is a bay where men may anchor in ten or twelve fathom all cleane ſand-ground, but with a ſouth-wind there commeth in a rowling Sea, but with northerly winds it is very good lying there.

The fourth Iſland. Thwart of the fourth Iſland on the mayn land, is alſo a ſand bay, where is alſo good road in 7 or 8 fathom for a northweſt or north-wind, but with an eaſt-winde it is there bad lying, that bloweth there in open through betwixt the fourth and fifth Iſland.

The Schipper. Even at the end of the Seven Iſlands is a great Indraugt, or bay, which the Ruſſes call the Shipper, which is narrow at the comming in, but within indifferent large and wide: within it is good road in 12, 8 and 4 fathom clean riſingh ground, but with a northeaſt-wind it is bad lying there, that bloweth there flat in.

About nine leagues to the ſouthwards of the Seven Iſlands, lyeth a poynt called Siornenos, that is to ſay, Black-poynt, it is ſo called, becauſe it is very black to, there within it the land is high, and goeth downwards low towards this poynt, allmoſt as Swetenoes.

At this poynt the land beginneth to alter in forme, to the northwards of it the coaſt is altogether high, but to the ſouthwards of it all low and even land, ſo that there by you may know (when you ſaile alongſt this coaſt) whether you be to the n. ward or to the ſouthwards of this black poynt.

Noock Oſtrove. A little to the northward of this point lyeth a high & great Iſland a halfe league longh, which the Ruſſes call Noock Oſtrove, which is the Nayle Iſland, behinde it is very good roade, you muſt run in there from the ſouthwards; from the northwards, you cannot come in there behind it.

The north-end is faſt to the mayne land with a bancke or ſtrake of ſand, which lyet moſt part above water, you may ſayle in there ſo farre behinde it as you will, and anchor in 10, 8, 6 or 4 fathom, the further that you ſayle in, the ſhoaler it is, it is very good lying there, and ſheltered for all winds.

From the Siornenos, or the black-poynt to Evanekriſt, it is ſ. ſ. e. 4 leagues, that is a poynt with many croſſes, under it you may make good roade for ſoutherly-winds.

From Evanekriſt to Kletna are yet 3 or 4 leagues, this is a poynt where upon ſtand alſo many croſſes, it lyeth out a little, but not ſo much as Evanekriſt, there you may have alſo road for ſoutherly-winds, but not for Seawards.

From this poynt to the Iſlands of Swetenoes or Jockena, it is two leagues.

Of the Tydes & Courſes of the Streames, about theſe foreſayd Places.

At Kilduyn an eaſt ſoutheaſt Moone maketh the higheſt water.
At Seven Iſlands a ſoutheaſt Moon maketh higheſt water.
At Sweetenoes a ſouth and north Moone maketh high water.
Alongſt the Coaſtes to the eaſtwards of the North-Cape, the floods come out of the northweſt and north northweſt, and run ſo alongſt the coaſt of Lapland, unto Orlogonoſe.

How theſe Lands doe lye one from the other, and from other Lands.

From Kilduyn to the poynt of Tierrebirry ſ. e. & by eaſt	5 leagues
From the poynt Tierrebirry to the Seven Iſlands, ſ. e. & by ſouth	18 leag.
From Tierrebirry to Swetenoes, the coaſt lyeth, ſ. e. & by ſouth	40 leag.

Heights.

The land Kilduyn lyeth in 69 degrees and 40 minutes.

How theſe Lands doe ſhew them ſelves at Sea.



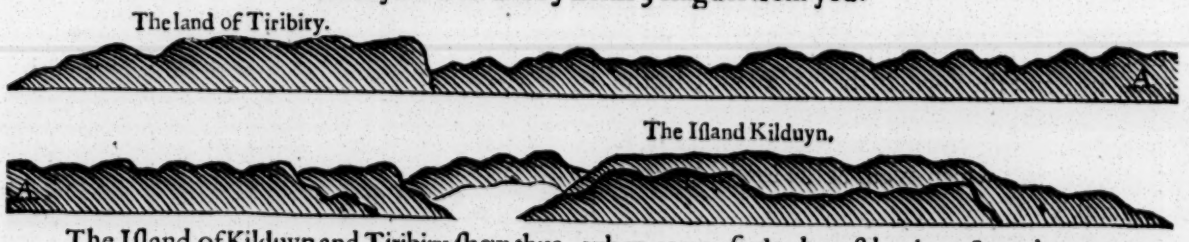
In this forme ſheweth Kilduyn, when the ſteepe poynt lyeth ſ. & by e. & the River of Kool ſ. ſ. w. about 5 leagues from you, & the land to the weſtwards of Kilduyn is very hilly, and the River doth ſhewit ſelfe very wide open as here ſtandeth pourtrayed.



Thus ſheweth the Iſland of Kilduyn, when the weſt-poynt lyeth ſ. w. & by ſ. and the eaſt-poynt ſouth and by weſt, ſomewhat weſterly from you, the River of Kool lyeth then ſ. w. and by weſt from you, the maile land that you may ſee to the eaſtwards lyeth then ſoutheaſt and by ſouth, ſomewhat ſoutherly from you: the land of Laus you may then yet alſo ſee in the n. w.



Thus ſheweth the land eaſtwards from Kilduyn, when the ſouth, or eaſt-end of Kilduyn is weſt and by north 3 leagues from you.



The Iſland of Kilduyn and Tiribiry ſhew thus, when as you ſayle alongſt by them foure leagues from land, about halfe wayes betwixt both, neareſt to Tiribiry, as is pourtrayed in theſe two Figures here above, the AA one to the other.



In this forme ſheweth the land of Tiribiry, when you ſayle alongſt by it, being 4 or 5 leagues from it, and eleven or twelve leagues from Kilduyn.

The

R V S S E N.

Catsnoes

Pelitza

Eylanden van Rodesmaske

Den Blaeuwen ofte Grauwen hoeck

Karresins

Mysmis

Mezenis

Cruys Eyl.

C. Pentecost

C. Bona fortuna

Mezeensche Golfe

Lampas

de Eylanden van Lombascho na 't leven ontworpen.

Pascaerte van de Mont van de
WITTE ZEE,
tot aen de Rivier van Archangel.
't Amsterdam,
By Iacob Theunisz. op 't water in de Loots-man.

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsen Fra. mylen 20 in een graet

SWETENOES met de Eylandekens daer ontrent gelegen, nae't leven ontworpen.

Tockena

R. van Tockena

Swetenoes

't Eylanden van Swetenoes

't Eylanden van Swetenoes

R. van Tockena

Tockena

Swetenoes

't Eylanden van Lombasche

Lombasche

R. Tomaw

De drie Eylanden

C. Cabsymes

A N D T.

Coloora

Coruna

25

26

The fifth Demonstration,

Where in are seth forth.

The Sea-Coastes of the Mouth of the White-Sea.

THE Islands of Swetenoes or Jockena, there are six in number, where of the lye alongst the shoare about the space of 2 leagues, the sixth lyeth within the other, thwart of the southermost of the five. The three northermost lye one by the other, as also the twe southermost parted asunder from the other three, the nortermost of al these Islands of Jockena lyeth from the point of Swetenoes due west 3 leagues, behinde it is good roade thwart of the south-end in 5 or 6 fathom. The point of Swetenoes is a flat point lying out, to the westwards of it, at the end of those foresayd Islands, goeth in the River of Jockena, where is a great Sammon-fishing. When you are by Swetenoes you can see little perfecteneese of these Islands, because the mayne land is much higher then the Island.

He that commeth from the northwards, and is bound into Jockena, must runne close alongst by the shoare, for to get sigt, of these Islands. Throug foure severall wayes you may sayle throug these Islands into the River of Jockena: First comming from the northward, you may sayle along by the shoare, throug betwixt the shoare and the Islands, which you leave then all on the larboard-side into the River.

The second passe lyeth in throug betwixt the tree northermost, & the two southermost Islands, that is a broade, wide & deepe, and also the best channell of all, it lyeth s. w. and s. w. and by west from the poynt Swetenoes, and lyeth in most south, when you sayle in there, you must runne nearest the southermost Island, because of a suncken Rock which lyeth in this channell somewhat of from the third Island, at high water you may run over it, but not at low water.

Being come within these Islands, you shall see the sixth Island, which lyeth within the two southermost, you must run about by it, leaving it on the larboard-side; When as you are then a little past that innermost Iland, you come against the hig poynt, and sayle in along amidst the channell betwixt both lands, there it is shoale water, to witt, 5, 4, 3 to 2 fathom & a halfe, but you may sayle in amidst the channell without feare, all alongst unto the Lappish-houses, where the Sammon-fishing is, and anchor there also in the middest of the River thereabouts lye some sunken Rocks, which at low water are uncovered, where of you must take heed.

For to have the right knowledge of this channell, you must looke out for the high poynt, which lyeth at the west-poynt of the River, within the Ilands, when that is behinde the fourth Iland (to reckon of from the northwards) and the poynt of Swetenoes is northeast, and northeast & by east from you, then you are rigt open before the foresayd channell.

Betwixt the two southermost Ilands goeth also an indifferent wide channell throug where men can sayle in, and so come on against the innermost Iland, which you may sayle about on both sides.

Betwixt the Ilands and the mayne land you may also sayle throug, but that is a very narrow channell, men sayle throug it, as if they sayled in alongst at ditch betwixt two Dykes.

For need, or if it where in extremity, you migt also sayle throug at high water betwixt the northermost Iland, and the second, and likewise also betwixt the second and the third, but if you can by any means doe better, it is not good to doe it.

Men may anchor at divers places within these Ilands. Betwixt the two soutermost Ilands, & the innermost Iland, you may have roade, where you may lye sheltred for all winds, and safe from Yce-drifts out of the Sea. Within the innermost Iland you must also anchor over against it somewhat further in against the steepe poynt. At the Rivers mouth, on the west-shoare is a bay where you may saile in, & anchor so neare to the shoare as you will, in 6, 5, 4 and 3 fathom soft sticking ground, there you lye safe Yce-drifts. You may also anchor on the east-side, rigt before the steepe poynt, but there you lye not safe for Yce that commeth out of the River. The tyde here alongst these Ilands, agreeth neere with the tyde of Swetenoes, it floweth with Spring-tydes neare 2 fathom & a halfe up and downe.

Behind the poynt of Swetenoes, you may run into the bay, and anchor there for a north, n. e. and east winde, there is cleane ground.

From Swetenoes to Lombascho, the coast lyeth s. s. e. 13 leagues. Under Lombascho men may also goe to anchor, but it is not there very good lying, especially with great shippes; the ground there is not cleane, and when the wind is out of the Sea, commeth in there rowling very much. The lying of this road standeth drawne out at large in the Card, with the depths set downe as it is at hig water and deepe tydes: the water falleth & floweth there at least 2 fathum up and downe, and at Spring-tydes little lesse then 3 fathum, or 2 fathum and an halfe. Lombascho.

Within the point, or in the bigt of Lombascho you may not anchor, there remaineth not above 3 foot water, and the ground is stony and foule.

To the northwards of Lombascho lye five Ilands lying alongst the coast allmost halfe wayes to Swetenoes.

Three leagues to the southwards of Lombascho, lyeth a black steep poynt, untill that the coast lyeth of from Lombascho also s. s. e. but from that poynt to Orlogenes, the course is south 9 leagues, betwixt them there is no place where men may anchor, but all alongst a whole coast, cleane and steepe. Orlogenes.

From the poynt of Orlogenes lyeth off a Stone-riffe a shot off cast peece into Sea, which falleth drye a great wayes at low water, where of men must take very good heed.

From Orlogenes to the River Ponnoye, it is 6 leagues, betwixt them lye three Ilands first from Orlogenes to the two first Ilands, the course is south three leagues and from thence to Ponnoye s. w. and by south 3 leagues. Three Islands.

A halfe league to the northwards off Ponnoye lyeth the third of the three Ilands, so that the two and the third lye about 2 leagues asunder.

These Ilands are much lower then the mayne land, so that they can hardly be seene or not at all, except you be by the shoare, thwart of them you may come neere the shoare in 7 fathum without danger.

Thwart of these three Ilands, and Ponnoy, the Mouth of the White-Sea is at the narrowest.

About 4 leagues thwart off to Seawards from the three Ilands in the middest of the mouth lyeth a shoale, which is very uneven and stony, and at some places with low water commeth dry above water, it lyeth south and north first north alongst the Coast, at least north and by west untill thwart of Lombascho, but there alongst it is deepe enoug, 15 and 16 fathum. About southeast from Ponnoy it is at the shoalest 7 fathom deep. You may also sayle alongst to the eastwards of this shoale into the White Sea, but there it is shoale water, uneven and very shoale. The rigt fareway is alongst to the westwards of it, and 25 fathom deep.

Ponnoy is a River where at low water remayneth no more then 10 foot water, it floweth there with a spring tyde three fathom up and downe, and with an ordinary tyde 15 foot.

From the three Ilands to the Iland Sousnowt: which men doe call the Crosse Iland, the course is southwest and by south, or as some doe hold southwest 10 leagues, or from Ponnoy 9 leagues. All alongst this Coast men may anchor every where in eight or nine fathom, and

with

with contrary winds ſtop the tydes, there goe ſtrong tydes eſpecially in the ſpring of the yeare with an Ebb.

Between the three Iſlands and the croſſe Iſland lyeth a poynt, upon which ſtand alſo three croſſes, one by the other, which men doe miſtake oftentimus for the croſſe Iſland, but it is much ſmaller to ſee to. When you doe get ſigt of that poynt, three ſheweth by it, as if there lay a ſhippe before the land with the topmaſt-ſtricke. The rigt croſſe Iſland hath upon the north end two Chroſſes, and upon the ſouth end three, by all theſe markes they are eaſe to bee knowne one from the other.

Behind the Croſſe Iſland you may have road in 6 or 7 fathom, you may ſayl in behind it, as well from the northwards as from the ſouthwards, it is there cleane and cleare every where, men doe anchor, when as the great croſſe doth ſtand from them e. n. e. there is the right road.

Southeaſt and by ſouth from the three Iſlands, and Ponnoy on the Ruſſe ſide, there goeth in the Meſeens golfe, into which commeth a great River, where men may go up to Kilda, and Kolmogro, and alſoo another, upon which the Town Slowoda lyeth.

Southeaſt from Ponnoy lyeth a little Iſland in the mouth of the Meſeens golf, where you may have road under for weſterly and ſouthweſt winds.

The ſouth poynt of this golf is a low Sand-ſtrand, all grown with trees, there you may alſo ankor alongſt by the ſhoare, but cloſe by the land; if you lye ſomewhat of from the ſhoare in 9 fathum, there the ground is foule, from thence alongſt the ſhoare to the Blew poynt, it is al faire ſtrand ground.

Current in the Mouth of the White Sea.

From the Croſſe Iſland, to the blew or Gray poynt, the courſe is ſouthweſt twenty leagues. In this fare way in the mouth of the White-ſea, there goe ſometimes very ſtrong currents, eſpecially in the ſpring, through the terrible great freſhuts, of the ſmelting of the ſnow, which falleth from both ſides into the White-ſea, and runneth through this ſtrait into the ſea, with great whirlingh and terrible riplings: It happeneth ſometimes that the current runneth there ſo terrible ſtrongh, ſo the weſtwards into the ſea, that with a reaſonable gale and full ſayls, men can doe no more but ſtem the tide, were of men muſt be mindful.

Gray-poynt.

Under the Gray poynt men may anchor on the ſouth ſide in 10, 8 or 7 fathom, there it is good lying for eaſterly windes, a northeaſt winde commeth from the poynt, the ground is there reſonable good, but not the cleaneſt.

From the Gray poynt eaſtwards to the Meſeens Golf the coaſt is all faire ſand-ſtrand, whith ſome bancks of two fathom and an halfe, and three fathum along the ſhoare, not farre without the land, where ſometimes the current fallet over with great riplings.

From the blew poynt to the River of Arch-Angell, the courſe is ſouth and by weſt 14 leagues. When you ſayle ſo towards the Rivers, you ſhall then firſt eſpy the land a good wayes to the weſtwards of S. Nicholas, it arriſeth in a long ſtrake, and then there riſet more land towards the River, as if it where a round Iſland, afterwards you ſhall ſee the ſteeple of S. Nicolas, when that ſtandeth ſouth & by weſt and ſ. ſ. w. from you, then you are open before the mouth of the Rivier of Arch-Angell.

Candenees.

The cape of Candenoes and Orlogenes lye n. e. & ſ. w. 67 leagues aſunder. The poynt of Candenoes is very eaſy to be knouwne, there ſtand 5 great croſſes upon it for markes. When as you fall with it, you may very well perceive, that the land falleth away, on the one ſide to the ſouthweſt, towards the Whire Sea, and ſoutheaſt on the other ſide.

morſenowits.

About 13 leagues to the eaſtwards of the cape de Candenoes lyeth an Iſland, called Morſonowits, to the eaſtwards of it goeth a great Baye into the land, but it is very ſhoale water, with many ſhoales & dwaelgrounds. It hath here to fore happened, that ſome ſhips have beene here loſt, thincking that they runne into the mouth of the white Sea, for it a greath very neare with the courſe, and alſo with the heigt of the White Sea, but it is eaſy to be know by the land, and to diſcerne one from the other, for the Ruſſe coaſt to the eaſtwards of Candenoes is altogether a land with Sand-hills, and a flat ſtrand, but the coaſt of Lapland is hig and hilly. In this Bay goeth a Rivier through the land, where you can come through with Lodges into the White Sea.

Twart off this Baye, about 26 leagues eaſt, & eaſt & by ſouth from Candenoes lyeth the Iſland of Calgoya, being 13 leagues longh, you may ſayle round about it, but upon the ſouth ſide runneth a great riffe alongſt the land: they that come from the eaſtwards muſt avoyd it, for it is faſt to the weſt end off the Iſland. Upon this Iſland are great ſtore of Geeſe, which in the Sommer are altogether bare, or naked, with out any feathers, which ſit and broad upon one egge, which they have lyingh under them, & ſo doe hatch their young one which are there in ſuch aboundance, that the Ruſſes doe come there a ſhoare with their Lodges, and lay a deele or borde upon the land, and drive the Geeſe with ſtaves into their boats or Lodges, in ſuch aboundance that they ſalt them into Barrels, in great aboundance.

From Candenoes to the Iſland Tuſſara, it is eaſt ſoutheaſt 42 leagues, betwixt them both goeth in the foreſayd Baye. By weſt Tuſſara lyeth the poynt off Swelgenoes.

From Tuſſara to the River of Colcova, the courſe is eaſt 7 leagues, which is a good River, being 12 foot deepe, but there is no other trade, but that the Ruſſes doe come there from Colmogro and S. Nicholas with Lodges, for to trade there, and to barter heir wares there for Skins and other wares.

Seven leagues to the eaſtwards of the River of Colcova, lyeth the River of Pitſana, there is but 6 foot water, and is an unknowne place, but a little to the weſtwards of it lyeth a ſhoale, which you muſt avoyd: Oliver Bruneel in his voyage from Nova Zembla come on ground there.

About 13 leagues to the eaſtwards of Pitſana lyeth the river of Pitſora, which lyeth in ſouth ſoutheaſt by the eaſt poynt, and hath 12 foot water, the land is there low with Sand-hills, & upon the weſt ſide ſtandeth a Pack-houſe with ſome croſſes. When you come within the River, you muſt edge up weſtwards towards the Pack-houſe, & anchor there in 3 or 4 fathum, there is a great Haff, or broad water. You muſt avoyd the eaſt ſide of the River, which is full of Sands and bancks. The little towne of Pitſora lyeth about five and thirty leagues within the land, there is great aboundance of coſtly Skinnes and Chriſtall.

Betwixt Pitſora and Waygats lyeth Oltgyn, and without the Land lye two rocks or little Iſlands, the one called Orangien, and the other Grave Maurice, you may anchor under them in 6 or 7 fathum. The ſouthermoſt ſhoteth of a little riffe, but you may ſound it wel in 3 fathum.

To the eaſtwards & to the weſtwards of theſe two little Iſlands is a great Bay, where it is ſhoale water, the land runneth there round to the poynt of Pitſora, al alongſt in a Bay off from Pitſora unto the Waygats. It is from Pitſora to Waygats n. e. and by eaſt 38 or 40 leagues.

Waygats, which is alſo called the Straite of Naſſowe, is a Straite where men may ſayle through into the Tartariſh Sea, it lyeth in firſt about eaſt afterwards n. e. through about 8 or 9 leagues, about halfe wayes through lyeth an Iſland, which you may ſayle about on both ſides. A little within the poynt, on the north-ſide is a faire Baye, which you may ſayle into ſo deepe as you will, in 5, 4 and 3 fathom, good ſtickingh ground, alongſt by the eaſt ſhoare is the deepeſt water, there you ſhall lye ſheltered for all windes and Yce-drifts.

Through this narrow or Strait, hath beene divers times attempted, or under taken, for to diſcover, and to finde a way, for to paſſe alonghſt to the northwards of Tartaria, unto the rich Kingdomers of Cathay & China, and ſo further to the Molucques, but in vaine becauſe of the terrible Yce that remaineth there the whole yeare through, & can never ſmelt, by reaſon of the continuall cold.

From the eaſt end of the Straite Wygats to Baye of Oby it is e. ſ. e. and ſ. e. and by eaſt forty leagues. To the eaſtwards of it that land lyeth forth n. e. forty leagues more, to the two Rivers, and then yet ſo forth alongſt n. e. but how far it yet unknowe.

The weſt coaſt of Nova Zembla lyeth to the northwards off from Waygats to Coſtintſarck n. n. w. about three and fifty leagues. To the northwards of it the land falleth away, about north and by eaſt to the poynt of Langenes

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

D

A

S

P

A

S

Sout Kete

Ter Rhieza, ofte Wolven Eylt

Swarte Rivier

Swarte Rivier

Tourie habbe

Ombay

Wolva Ostrove

Kandalox

Kemelse

Kamoda

Varsche Rivier

Swarte Rivier

Kicht

R V S S I A

De Blauwen oste
Grauwen hoeck

Archangel

Nieuwe diep

Novegroe

Dunes

S. Nicolas diep

S. Nicolas

Warhga

Chelster

Visscher Eylandt

Cascarava

W I T T E

Z E E.

I. Soleski

C. Xiela

Zalotaza

L A P L A N D

Pascaarte vande

WITTE ZEE

begrypende de custen van Lapland, van Warsiga tot Kandalox en de cust van Corela tot aen de Riviere Dwina.

't Amsterdam;

By Iacob Theunisz. inde Lootsman.

Duytſche mylen 15 in een graed

Spaenſche mylen 17½ in een graed

Eng. en Fran. mylen 20 in een graed

RUS

LAND

Cruis eylandt

Schilders hoec

Vlie

Hoy land

Hom

Moedeskee

13 voet

16 voet

S. O. ten O. ½ S.

N. O. ten N.

S. W. ten W. ½ S.

S. W.

DE WILDE ZEE

Pascaert van

ARCHANGEL

om't Nieuwe-diep op en aste Zeylen.

't Amsterdam,

By Jacobus en Casparus Lootsman op't water in de Lootsman.

Archangel

oste-S=Michiel

Vaert van Colmogro

Het oude diep

Dorp

Solebal

Samejoden eyland

13 voet

Mar Mast

RUS

SAND

GE

BRO

KEN

LAND

24

or the States-poynt, further n. n. e. n. e. and e. n. e. to the Iland of Orangien, the northermoſt part of Nova Zembla, in the heigt of 77 degrees and an halfe.

Of the Tydes and Courſes of the Streames about theſe foreſayd places.

At Swetenoes a ſouth and north Moone maketh high water.

Alongſt the Coaſtes to the eaſtwards of the North-Cape, the floods come of the northweſt & north northweſt, & run ſo alongſt the Coaſts or Lapland, unto Orlogonoſe.

At the three Iſlands a ſ. w. and n. e. Moon maketh high water.

At Katſnoſe-poynt and eaſt & weſt Moon maketh the higheſt water.

Before Podeſſemske & S. Nicholas an eaſt & by ſouth and weſt and by north Moon maketh the higheſt water.

At the Iſland of Nova Zembla a ſoutheaſt Moone maketh high water.

From Orlogenes & the three Iſland, the flood falleth into the mouth of the White Sea, towards the graye Poynt of Catſnoſe about ſouth ſouthweſt & ſouthweſt & by weſt.

But about the poynt of Catſnoſe, the flood falleth into the White Sea, partly towards warſiga and Ombay, and alſo towards the Podeſſemske and S. Nicholas.

To the eaſtwards of Candenoes, towards the Iſlands of Colgoyen the flood falleth eaſt and by ſ. alſo alongſt the ſame Iſland, & from Colgoyen towards the Waygats; the tyde falleth eaſt and weſt. Alongſt Nova Zembla, the tydes turne about Moone alongſt Ruſland, they come out of the weſt & w. n. w. betwixt Candenoes & Pitſora, & fall ſo alongſt Ruſland.

The floods towards Waygats come from Calgoyen and Nova Zembla, and fall together eaſt and by north throug the Straite of Waygats towards the River of Obye, ſo that the Ebs and Floods doe keepe open the channell of Waygats, that they are oftentimes without Yce or at leaſt but with Yce that drives in ſhoales.

But to the eaſtwards of the Waygats, the floods come out of the northeaſt and fall ſo into the Obye, and into the Strait of Naſſowe, there the water riſeth and falleth, but kepet no certaine tyde.

Of the depths and grounds both to the Eaſtwards and Weſtwards of Waygats.

All the Coaſt alongſt off from Candenoes unto Waygats, men doe find a flat riſing ground, the moſt part ſand and ſoft ground, he that muſt ſayle there in miſty weather, muſt know that in 8 or 9 fathom depth, he is 4 or 5 leagues from the Coaſt, but when it is 30, 35 or 40 fathom, then he is farre enoug from the land. So it is alongſt Nova Zembla, & alſo over the eaſt-ſide of Waygats, but when you come before the Strait, it will be ſhoalter by little.

How theſe Lands doe lye one from the other, and from the other Land.

From Swetenoes untill 3 leagues paſt Lombaſcho ſ. ſ. e.	16 leagues
From thence to Orlogenes ſouth	9 leagues
From Orlogenes to the three Iſland ſouth	3 leagues
From the three Iſlands to Ponnoy, ſ. w. & by ſouth	3 leagues
From the three Iſlands to the Croſſe-Iſland Souſnowits ſouthweſt, & ſ. e. and by ſouth	10 leagues
From the Croſſe-Iſland to Catſnoſe, or the gray poynt ſ. w.	20 leagues
From the Gray-poynt to the River of Archangel ſ. & by weſt	14 leagues
From the Croſſe-Iſland to Warſiga, the courſe is weſt ſouthweſt & weſt & by ſouth	24 leagues
From Orlogenes to the C. de Candenoes, the courſe is n. e.	47 leagues
From Candenoes to the Iſland Colgoye eaſt and by ſouth	26 leagues
From Candenoes to Swelgenoes ſoutheaſt and by eaſt	29 leagues
From Candenoes to the Iſland Morſonowits ſoutheaſt	13 leagues
From Candenoes to Tuſſara it is eaſt ſoutheaſt	7 leagues
From Colcoya to Pitſana eaſt and by north	7 leagues
From Pitſana to Pitſora eaſt and eaſt and by north	13 leagues
From Pitſora to Waygats, the courſe is about northeaſt and by eaſt	38 or 40 leagues
From Catſnoſe to the Iſland of Soloſky, weſt or ſomewhat more ſoutherly	37 leagues
From Candenoes to Coſtintſarck in Nova Zembla, northeaſt and by eaſt about	83 leagues
From the eaſt-end of Colgoyen to Waygats eaſt	80 leagues
From Pitſora to the eaſt-end of Colgoyen, w. n. w.	43 leagues

Heights

The poynt of Catſnoſe or the Graye-poynt lyeth in	65 degrees
S. Nicholas or the River of Archangell in	64 degr. 30 min.
Cape Candenoes	69 degr. 30 min.
The Iſland Colgoya in	69 degr. 10 min.
The River of Colgoya, Pitſana, and Pitſora lye in	68 degr. 38 min.
Waygats or the Straite of Naſſow lyeth in	69 degr. 43 min.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Land betwixt Swetenoes and Orlogenes, as you ſayl alongſt by it.

The ſixth Demonſtration,

Where in are ſet forth

The Sea-Coaſtes of the whole White Sea.

FROM the Blew-point to the River of Archangell, the courſe is ſouth and by weſt 13 leagues. When as you ſayle ſo towards the Rivers, you ſhal then firſt eſpy the land a good wayes to the weſtwards of S. Nicholas, it riſeth in a long krake, and then there riſeth more land towards the River, as if it where a round Iſland, afterwards you ſhall ſee the ſteeple of S. Nicholas, when that ſtandeth ſouth and by weſt, and ſ. ſ. w. from you, then you are open before the mouth of the River of Archangell.

If you will ſayle in there, then bring the ſteeple of S. Nicholas a ſhippes length & a halfe, or two ſhippes lengths to the eaſtwards of the Croſſe ſand-hill, keepe them ſo ſtanding, & ſayle rigt with them, untill that the wood within, come midwaye, in the middlemoſt Podeſſemske, goe on then ſ. w. and by ſouth, and ſ. w. for to ſayle a weather of the tayle or ſhoale, which ſhooteth off from the eaſt-ſhoare, when as then the wood within (that is, the wood upon the northeaſt-point of the River) commeth to the ſouthermoſt of the two woods, which ſtand upon the middlemoſt Iſland or the Podeſſemske, then you are in the Mouth of the channell, right upon the ſhoaleſt of the Barre, the markes of the eaſt tayle are, when the wood commeth halfe wayes betwixt the ſouthermoſt and the middlemoſt Podeſſemske. When the poynt of the ſouthermoſt Podeſſemske is ſouth ſoutheaſt ſomewhat ſoutherly from you, then you are without the point of the weſt-grounds. If you bring that poynt more eaſterly from you, you can take no hurt of that poynt. When you are entred the channel, then goe, as beforeſayd, ſ. w. and by ſouth and ſ. w. untill that the ſteeple off S. Nicholas come a ſhipps length by weſt the Croſſe ſand-hill, then further take the ſounding of the weſt-ſhoare, and runne in by it, towards the foot ſtrand, and alongſt cloſe by it, without going off from it, untill that you come thwart of the white place, or ſpot, on the weſt ſhoare, about the place where it ſtandeth marked in the Card with A. Edge over then from thence eaſt and by ſouth, and e. ſ. e. right to the poynt of the Wood on the eaſt-ſhoare, and on ſ. e. in alongſt by the eaſt-land, cloſe alongſt by the ſhoare, but thwart of the two Iſlands which lye on the ſtarboard-ſide, it is a good wayes alongſt the eaſt-ſhoare ſomewhat foule and ſhoale, where of you muſt take heed. But goe all alongſt by the ſhoare, untill that you come by the firſt River on the larboard-ſide, edge then over again to the weſt-ſhoare alongſt ſ. ſ. w. untill you come to the Bight, there it is ſhoale water on the eaſt-ſide.

When you are come in the bigt, then goe on e. ſ. e. and afterwards eaſt and by ſouth towards the Stone-reach, Stone-reach.

sayl throug there amidst the channell, alongst by the buyes, which lye in the middest of the deepe, it is on both-sides of the buyes uneven and rugged.

When as you come against the Stonereach there standeth a Fishers house upon the west shoare, by the little River that runneth into the land, at the northend, or west-end of the Stonereach, thwart of that foresayd house lyet a great stone under water, which you may sayle about on both-sides, it lyeth about the middest of the fareway, as you come saylingh on, men sayle commonly about to the westwards the Stonereach, for the west-side is deepe enoug,& at some places somewhat so it ground,but the east shoare is full of rocks.

When as you are past the buyes, then you must keepe of againe, somewhat from the shoare. There was wont to lye a little Island at the end of the Stonereach, but that is of late yeares altogether scowred a way with the Lee. When as you are now through the Stonereach, the course is first southeast, and afterwards southeast and by south, untill you come in the bight, then goe on east southeast & keepe yet to the west shoare, untill that you see the towne of Arch-Angell, then sayle right towards it, but avoind the point on the larboard side, for it is foule.

Arch-Angell. For to goe from Arch-Angell further up the River to Kolmogro it is about twelf or thirtie leagues most southeast, but the River runneth upwards with many crooked Bights.

Kolmogro.

For to sayl out of the River. For to sayle out of the River of Arch-Angell, then run out by the foot-strand,and keepe the sounding of the west-shoare. When as you beginne to see the steeple of S. Nicholas, then bring it a ships lengt to the second or middlemost Podessemske, there lyeth a black Hommock upon the strand. The north-side of the wood within commeth then over that Hommock, then goe on northeast and by north, and north northeast, towards the Podesiemskes. When as then the wood within commeth to the north-side of the southermost of the two woods, upon the middlemost Podessemske, then you are upon the shoalest of the Barre, but when the poynt of the southermost Podessemske is south southeast somewhat southerly from you, then you are at the end of all the shoales, and may goe your course through the sea, where you please, no shoales shall hinder you.

S. Nicholas. From the Barre of Podessemske, or from the River of Archangell to the roade of S. Nicholas it is foure leagues. There standeth a Beacon at the end of the Island, where the English house standeth upon, by west that beakon is the roade for the Englisn shippes, in 6 or 7 fathom, accordingh as they lye neare or far from the shoare. The English River. Englisn River lyeth in there east northeast, and northeast and by east, alongst by the Cloyster of S. Nicolas, but that is so shoale a river that not ships can goe into it, men must lade them without with Lodges.

About southwest and west and by west from the barre the River of Arch-Angell lyeth the Salt-Island, upon it standet a Cloyster, and is fast to the main land. This land lyeth of from thence to the Cape de Onega, west and by north.

Warsiga. From the Crosse-Island to Warsiga, the course is west-southwest and west by south about 24 leagues. Warsiga is a village, lying on a River, where is a Sammon-fishing, which lyeth into the northwards within the land, you cannot come into the River with shippes, there is no more then 8 or 9 foot water, but must stay without in the roade before the River, there is cleane sand-ground, without any fowle ground, so that you may anchor there without danger, so neare or farre from the shoare, as you will.

This River men doe know (when they sayle alongst the coast) by three high Hommocks, which are higer then all the other, and almost of fashion like the three hills by Bayonne in Galicia, to the northwards of it are white sand hills with trees upon them. Even by west the three foresayd Hommocks goeth in the River.

For to sayle from Warsinga to Ombay, the course is alongst by the coasts a little west, west and by north, and then west northwest, afterwards the most northwest, unto the poynt of Tauria six and thirty or seven and thirty leagues. About halfe wayes betwixt them, well so neare Warsiga as Tauria lyeth on the coast a hig bare hill, thwart of it and to the westwards of it lye some bancks, where of you must take heed.

Poynt of Tauria.

The poynt of Tauria is a high steepe poynt full of trees, to the eastwards of this land, the poynt falleth away into a great Baye farre along to the eastwards. About five leagues to the eastwards of the poynt of Tauria, lyeth a rock, a good wayes from land, which is not very great, but very easy to be knowne, it sheweth a farre of, as if there sate a great Ape upon it, this rock the Russes call Tourie Babbe, that is to say, Grand-Mother of the poynt.

Tourie Babbe.

Within that Rock in that foresayd Baye it is all shoale water, uneven and foule ground, where you may not anchor for westerly and northerly winds, somewhat to the northwards of the poynt in the Bight, there it is shoale, but by the poynt it is deepe, there you must anchor close by the land.

By the west poynt lyeth the Island Volna Ostrove, by the Dutchmen called the Reeme Island. From the poynt Tauria to that Island, the course is north-northwest, two leagues.

Volna Ostrove

Betwixt the Island and the land of Tauria lyeth also a little Island, betwixt these two Islands, you may (for need) sayle through with a shippe, but it is very norrow, at the northeast poynt of Ostrove is roade in thirty fathom then you lye with the shippe, (when she lyeth wended to the Island) in eight fathom, so very steepe and risidgs is the ground there.

From Volna, Ostrove, or the Reeme-Island to the Gouba, that is the salt river (where men doe lade, lying a half league by east Ombay) the course is north-northeast three leagues which lyeth in north, and north and by east, it is not very broad but deepe, at the commingh in it is in the middest foure and twenty, and five and twenty fathom, farre within, five or six fathom deepe, but there is fowle. Men doe commonly anchor a halfe league within the River, on the east side, with an anchor in the middest of the river, sixteen or eighteen fathom, and with a cable on land, there it is good lying with all winds, except with a south-southwest winde, which bloweth there open in.

Salt River.

About halfe a league to the westwards of it lyeth the fresh River of Ombay, which is a so shoale and foule, that men cannot goe in there with shippe, except they be small, and also the Russes are not willingh theyd should come these; for not to spoyle their Sammon-fishing, there is great store of Sammon caught, which is carried from thence with boats to the shipps in the salt river.

Ombay

From thence the coast lyeth somewhat alongst west-southwest and then upon the northwest to Kandalax.

There abouts lye also more lade places, where Sammon is caught, at Kierickarick, and Kargapoll, that lyeth southwest from Ombay, on the Corcels side.

Kierickarick. Kargapoll.

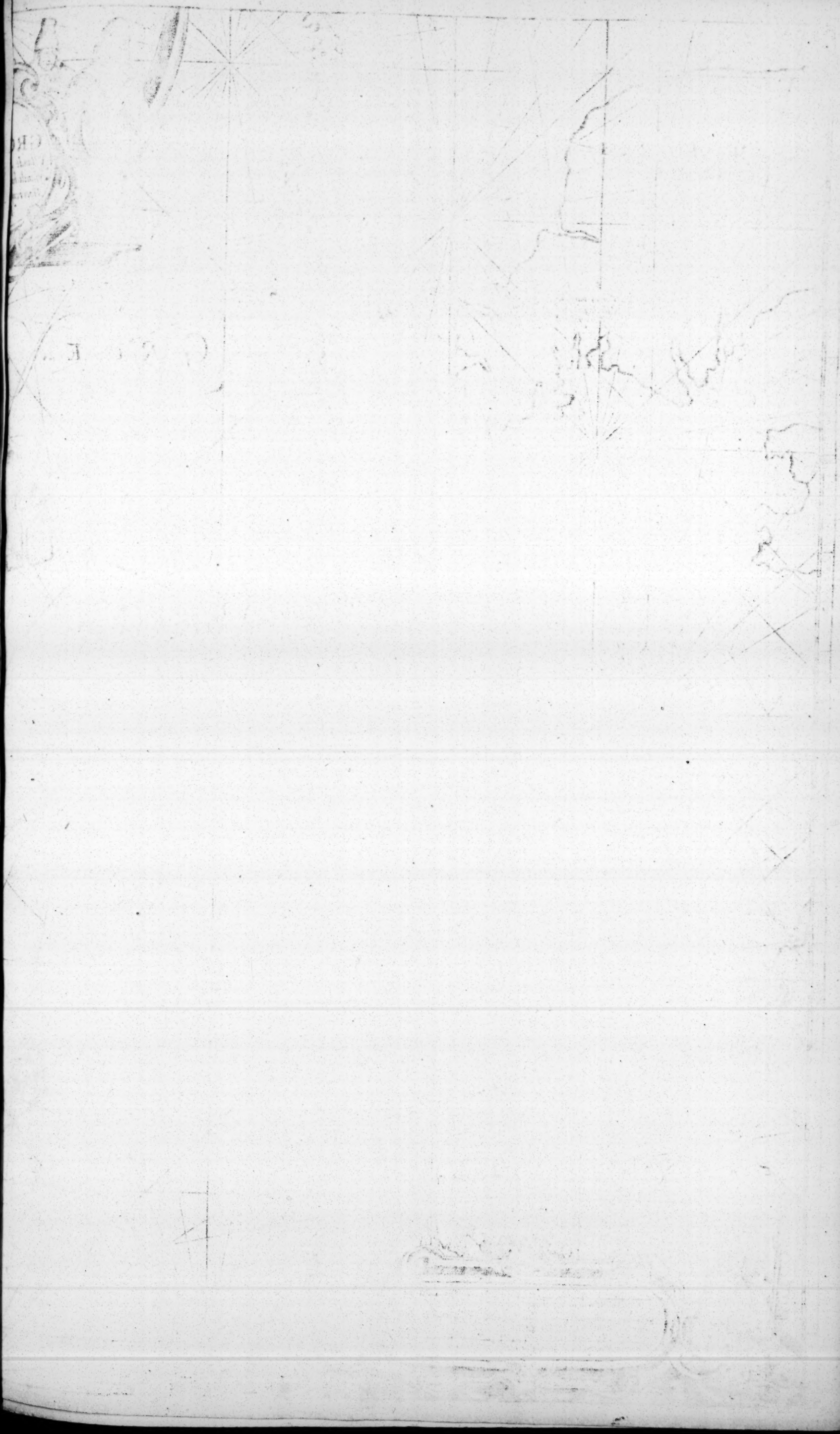
How these Lands doe lye one from the other, and from other Lands.

From the Barre of Arch-Angell to the Salt Island south west somewhat westerly	7 leagues
From the Salt Island to the C. Onega w. and w. and by n.	17 or 18 leagues
From the C. Onega to the Islands Solofky n. w. and by w.	20 leagues
From Warsiga unto the poynt of Tauria west and west by north, west-northwest and northwest	37 leagues
From Cruys Island to Warsiga west southwest	24 leagues
From the poynt of Tauria to Folna Ostrove, n. n. w.	2 leagues
From Volno Ostrove to the Gouba to the eastwards of Ombay north-northeast	3 leagues
From Ombay to Kandalax northwest and by west	13 leagues
From Catsnose to the Islands of Solofky west or somewhat more southerly	37 leagues
From Catsnose to Warsiga northwest and by west	16 or 17 leagues
From Catsnose to Polongi northwest and by north	23 leagues
From the Islands of Solofky to Ombay in Lapland north	32 or 33 leagues
From Solofky to Warsiga east northeast	32 leagues
From Solofky to Pologni northeast and by east	50 leagues

Heights.

S. Nicholas or the River of Archangell in	64 degrees 30 minutes
The Island of Solofky in	65 degrees 10 minutes
Ombay in	66 degrees 45 minutes.

The



AMERI
CA.
GROE
NLA
FRANCIA.
Womens I.
Vrouwen Eylanden
Hier is varsche visch doode Walvisch witte volsen en varsche Salm.
Cumberlands bay
C. Walsingam
London Cust
Strait Davis
Helmsdales field
Wilsons Sound
Dysche haven
R. Bals
Briefsche haven
C. D'Iolaigon
Martyn Forbishers Straet
C. Bril
Wilde bay
M. Iorus bay
C. Maydson
Mauritius bay
Stutern hoeck
Strait Hudson
Carthwrights hope
Sands sydlant
Gants bay
Sybalds Hoeck
Clapmuts oste Noort Hoeck
Or gage bay
Zeerobuysens bay
Zeebaers Hoeck
Hudsons hoeck
Old Comrades hoeck
Hollandse bay
Lage hoeck
Groen Blanche
Bay Sauvage
C. de Gansen
Bell Ile
Dutsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een graet

...e van
...LANDT,
...nds en Ian Mayen
...ngeren Nitlande en de
...ntlande en Yrlandt
...mach.

Landt door Gack Hamkes opgedaen A° 1654

Lounges Eerlandt oste Irminie Eylandt. nu Ian Mayens Eylandt

...NDT.

Dit is altemael Ys en groene Ysbergen

Koorts hoogde

Nieuwe klip

C. Noord

Groen Eyl

Straet Hees

I. Gonhermus

Gonhers Schaer

Bruntgers weg

Brede fioerd

Arnoe fioerd

YSLANDT.

Langenes

Straet bij Balaert

Pappy

Enchuysen Eylandt

Burger fioerd

Reijkenes

Vogelscheren

Hamfioerd

Portlands haven

Engelsche Cleyp

Engelsche Eyl.

Verlaes Eyl.

Eyder

Wolmanus

Bay

Rokol

De Kimmen

S. Kilda

Lewis

S. Patricius

S. Marie

S. Petrus

Ierse

Ila

Slye

Rona

Barry

Orcades

Hitlandt

Faloe

Faerr hill

Berkens Slaves

Aberdon

Steen hoost

Mowros

Rosthoon

Dondi

S. Andries

Barwyck

Bamberg

Dunstaborg

Lancaster

Anglesey

Chester

Bristou

I. Lundey

Sorlingues

Kissingen

Guernsey

Iersey

Kessant

SCHOTLANT.

YRLANDT.

ENGELANDT.

...Amsterdam by Iacob Iacobsz
...op't Water inde Lootsman.

25

PASKAERT.
van de Noordelijckste kuste
Van
AMERICA
Van Groenland door de Straet Davis
en de Straet Hudson tot Terra Neuf.
t'Amsterdam,
bij Iacob en Caspar us Loots man
Boeckverkoopers op 't Water.

St. Thomas Smiths Bay
Mackays Ile
Aldermans Ionas Sound
BAFFINS BAY.
St. James Lancasters Sound
New North Wales.
Mt. Mera
C. Comfort
Seahorse Point
Hope Advanced
Mill Iles
C. Charles
C. Phelps
Carys Swans nest
C. Pembreck
Buttons Bay
Hope Check
C. Southampton
Mansfild Iland
Digges I.
I. Salisberis
I. Nelsham
I. Marbels
Brige bay
P.t Nelson
New Severns
New South Wales
C. Henrietta
James his Bay
Land Nelsons I.
C. Monmouth
Hudsons Bay
C. Iames
Ohio Nithemaugh Nuffen
Carres Ile
The Great Bay
Charleton Ile
Danby Ile

Horne sund

Hoye Sunderson

Womens Ile

Vronwen Eylanden

Cumberlants Isles

Cumberlants Bay

Dit is warsche Vysch. Zoode Walvisch. Witte Vossen en warsche Salm.

London east

STRAET DAVIS

Deensche haven

Britsche haven

Sabiges I.

Goeds verres

I land of good fortuyn

C. Elyzabeth

Isles Resolution

HUDSON.

Hoge Abrancel

Anuckamanack

Baltons ilts

Hoy bergen

Swarte hoeck

Schultpadde

Cardinaels hoed

Sadel eyland

Sybolts Hoeck

Ganse bay

Eecenhuysens hoeck

Slyters Hapen

Claymants bay

Moot haven

Orange bay

Zuydoost hoeck

Anthonis hoeck ofte Camcels hoeck

Hollantsche bay

Lage hoeck

Bay Sauvage

C. de Gamay

Grein Blanche

C. Desolation

Martyn Forbischers Straet

Briel

Wilde bay

Vlieris bay

C. Marlsen

Mauritius bay

Staten hoeck

LABRADOR.

NOVA FRANCIA

Duytsche Mylen 15 in een graade.

Spaensche Mylen 17½ in een graade.

Engel. en Fran. mylen 20. in een graade.

The third BOOK of the New

Ligtningh Sea Columne,

OR

SEA MIRROUR.

EASTERNE and NORTHERN NAVIGATION.

Containing

The Deſcription of Yce-land, Greenland, or the Strait of David:
Likewiſe the Situation of John Mayens Iſland and Spitsbergen: Alſo Situation of Candenoes Eaſtward, through Weygats to the Tartariſh or Yce-Sea.

The firſt Demonſtration,

Where in is ſheweth

The Paſſages between Hitland & Yceland, & from thence to the Straits of David, or the Corner of Old Greenland, now called Statenhoeck.

How man muſt ſayle from Hitland to Yceland.

FRom hence, or out of Texel to Hitland is the courſe well enough known to (allmoſt) all kinde off Mariners. But when ye will ſayle from Hitland to Yce-land, your courſe muſt be from the ſoud-end of Hitland to the ſouthweſt-corner of Yce-land, leavingh Weſt-Mana Iſlands on your right hand: the courſe is weſt-northweſt-ward, a half ſtroack weſterly, and e. ſ. e. a half ſtroak eaſterly, the matter of an hundred four-ſcorce and fifteen dutch miles.

Sayling from the ſouthweſt-corner of Yce-land, ye muſt ſayle northward on alongs the wall, the matter of 5 miles till ye come to the clift of Reykeneſſe, from thence e. ſ. e. hard underland, till ye come to the haven of Hanifioert: Ye kan ſcarcely know that other is a haven here till ye come to the end of the farewater; but ſayling all alongs the wal, till ye come to a blinde Roſt ſtanding in the middle of the water, and a little Iſland where on there is a houſe, then ye can ſee the Bay where the road is: Ye may ſayl on eyther ſide of this blinde Rock, but rather on the north as ſouth-ſide; and ſo running inwardly till ye rigt oppoſite to the houſe, there ye have a good read and ancker-ground, of 3, 4 or 5 fathom: Here ye need fear no kinde of windes, the weſt and weſt northweſt are the worſt, but without danger, becauſe of the clifts that ſtreatches themſelves from the northwal: here ye can have good water becauſe of a ſtream that flowes through between the mountains on the northwall. The Indwellers here be of a reſonable good condition, and brings aboard fiſh, ſtockens and other commodities for a ſmall price, they would rather have linnen as money for their wares; but above all they are moſt deſirous of Burnt-wine. Ye can have here likewiſe ſheep, milck and fleſh for other wares.

The matter of three miles northward from Hanifioert runs ſeverall warmwater rivers into the Sea, landwards in, thoſe Rivers are ſo hot that if ye ſhould put a piece of fleſh on a fleſh-hook, and let it hangh in the water, it is able to boil the fleſh: but on the Sea-ſhoare the waters be lukewarm, ſo that ye may either ſwimme or bath your bodies into them.

The Straits of David.

He that would ſaile from thence, to witt, from the ſouthweſt-corner of Yce-land to Fretum Davids, he muſt ſet his courſe weſtward ſomewhat ſoutherly, that he may reach to the corner of the land, the which corner ye can ſe when ye are the matter of 6 or 8 miles from the land: commingh thither ye can ſee the Yce which lyeth there continually the whole year through: So that in caſe ye ſhould ſet your courſe more ſouthwardly as is above mentioned, ye ſhould not attayne to the cape. Therefore when ye ſee both the land & the Yce, ye muſt ſayle along by the Yce, which ſhall lead you into the corner of the Straits.

The Corner of the Strait lyeth juſt upon 60 grades benorth the Linie, for the Yce ſtretches himſelf according as the wall lyeth: and when ye come beſouth the Yce, about nine and fiftie grades & 25 or 30 minutes, ſometimes ſomewhat ſoutherly, ſometimes ſomewhat northerly, ſo ſhall the Yce lye north northweſt-ward from you, a like as the wall the Straitward in lyeth, to the hight of three ſcorce three grades, and then lyeth the wall right northward, till over the threeſcorce ſix grades and thirtie minutes, and then ye come into the narrow of the Strait, which is about thirtie miles broad; till ye come to the hight of one and ſeventie grades & thirtie minutes: & then ye come in an open roome Sea lying n. w. running round northward towards the eaſt, and from thence ſouthward again to the above mentioned narrowneſſe.

This Sea runs northward to the higt of 79 grades, where it is cloſeſt by faſt land, with a great many bayes and Rivers moſt part full of Yce, which becauſe of the ebbing ground falling of waters is driven through the narrowneſſe of the Strait into the North-Sea and from thence unto the Coaſts of Terra Nova, in the great-bay of St. Laurence, after and on the weſt-ſide of Terra Nova. Terre Nova.

The Inhabitants of this land on both ſides of the Strait,

are Heatheus & Wilde Men: and therefore are not to be truſted, throug they give neverſo many tokens of Friendſhip. Whatſoever they handle or change with you, they lay it on the oares where with they row their Canoe, they truſt no bodie, and therefore are not to be truſteſt, for as a foreſaid they lay their wares on their oares and ſo delivers it to you. When ye are reſolved to goe on land, ye muſt be well armed, and eſpecially with Muſquets, for as for Swords or Sabels they care not, becauſe they can reach you with their Arrowes, or with their Slinges ere ye can come near them; but if ye happen to kill one or two of them with Muſquet bullots, the reſt ſhould in haſte flee from you to their Mountains where they have their abode.

Staten hoeck. This land from old Green-land benorth Yce-land lying ſouthward to the Cape or Staten-hoeck, & from that corner all along to Fretum Davids, and all round about that inward Sea, is it altogether a faſt land, & joyned to America, untill the nord and n. e. of Yce-land; yet is the opinion of ſome men, (as likewiſe of my ſelf) that is joyned to Spits-bergen, and that becauſe of the Rivers which come from the north foreby Spits-bergen, which Rivers ye can perceive when ye are on the higt of fourſcorce and three grades, and becauſe they Ebbe towards the north, it may be beleeved that there is paſſage, but as yet unknown.

To know the Land.

Ye can ſee the ſ. e. Coaſt of Green-land when ye are the matter of ſix or eight miles from it; & when ye ſee it, then ye are hard by the Yce.

Of the Tydes & flowing of Streams.

The Streams or Rivers come out of the North from Spits-bergen, and floweth alongs Green-land.

They ebbe on fourſcore and three grades towards the North, and floweth towards the South.

Situation and Courſes.

From the ſouth-end of Hitland to the ſouthweſt-corner of Yce-land w. n.w. and a half ſtroke weſt-liet 195 miles

From the ſouthweſt-corner of Yce-land, to the cliſt of Reykeniſſe northward 5 miles

From the Clift of Reykeneſſe to the Haven of Hanifioert eaſt ſoutheaſt 12 miles

From the ſouthweſt-corner of Yceland to Staten-hoeck, w. ſ. w. ſomewhat weſterly 186 miles

Of the Heights of theſe Lands.

The Cape of Old-Green-land or Staten-hoeck lyeth on 60 grades

The ſouthweſt-corner of Yce-Land lyeth on 74 grades & 5 minutes

The Mouth of the Strait of David lyeth on 71 grades

The ſecond Demonſtration,

Which Containeth the Deſcription of

JOHN MAYENS ISLAND.

JOhn Mayens Iſland lyeth from Hitland northward, accordingh to the common Hollands Compas, or as other ſay n. n. w. upon the half ſtroke: yet it is better to ſayl ſomewhat weſtlyer as to fall a little eaſtly, becauſe they muſt be on the weſt-ſide of the Neering, for if they fall eaſterley then they muſt needs ſail about the north of the ſame, where they have to great calmneſſe, & ſometimes whirlwindes, that fall in a ſudden from the Mountain called the Beeren-bergh, or in Engliſh called the Bears-Mountain.

In the Spring of the year on the eaſt-ſide of this Iſland is not ſo much Yce as on the north-ſide. For the Sea on the north-ſide, (which is never above 10 miles navigable) is in the Spring commonly alwayes frozen.

The winde blowes there commonly out of the ſ.w. both harder and oftner as out of any other place.

In the South-bay a ſ. ſ. e. and a n. n. w. Moone (according to the common Compas) makes a full Sea. The floud flowes there from the ſouth towards the north, and Ebbes contrarily.

The firſt day of Auguſt (at the north-end of the a foreſaid Iſland) did the Sun riſe in the n. e. with the one half of this bodie under, and the other half above the Horizon: and the laſt day of July was he wholy under.

The Bears-Mountain. On the North-end of this Iſland is a very hig Mountain commonly called the Bears-Mountain, the which, if ye behold it from the north, ſeemeth to be cloven, but if ye behold it from the eaſt or weſt-ſide, it ſeemeth round, falling as it where ſmoothly downward, except at the northeaſt-corner, where it ſtretcheth it ſelf outward.

The North-Corner is hillie and rough, it ſeemes ſomewhat low becauſe of the high ground that lyeth about it: From thence the matter of a half mile ſoudward the coaſt is hillie, ſtay and ſhallow, ſo far from the wall as a little canon can carry, is it about 20 fathoms deep: a little more ſouthwards is there a ſmall foot-ſtrand of ſtonie ground, ſo that upon ſome places ye could make ſhift to bring your chaloup or boat, and this ſtretches it ſelf the matter of a mile in the length ſouthward.

The three Yce-hills In or upon this ſtrand there are three Yce-hills high and ſtay, thoſe are congealed of the ſnow-water, which fals in the ſommertime from the top of the Mountain, two of them lyes near to the North-end of the ſhoare.

From thence further ſouthwards is the wal for the matter of a quarter of a mile (or ſcarſce ſo much) hilly and ſtay, as it is at the north-end, and from thence is there another ſhoare about a half a mile in the length, there on likewiſe can ye bring your Boat.

From thence come we to the Southeaſt-Corner of the Bear-Mountain, which is likewiſe hilly and ſtay as the a foreſayd wall, ſo that is impoſſible to come upon it, at ſome places higher, other ſome lower, oneven, it is commonly 25 or 30 fathoms high from the wather, and within goeth it in ſome place ſomewhat ſtay upward to the Bears-Mountain.

At this Corner lye ſome little Rocks ſeparated from the land, whereon are a great many of ſeverall ſorts of fowls, ye can row to and about theſe Rocks, with your Boat: A little about this Corner there lye likewiſe ſuch Rocks without the wall, between theſe Rocks there is a commodious haven, with a little Sand-bay, where ye can eaſily bringh up your Boat whileſt ye Anker; there ye are freed from the Sea, for it is there commonly calm water, although it ſtorms without. Ye cannot perceive that there is a haven there till ye he within the Rocks. From theſe Rocks weſtward about a ſhort mile, is the wall ſtay and rockie as before, yet not ſo high, al alongs the Coaſt is there many ſharp rocks, ſtanding as it where out of the wal. From the land off, as well by the ſhoare as by the ſtay wal, the matter of a Muſquet-ſhot, or thereabout ye have water ſome 60 fathoms deep.

When ye have paſſed this ſtay ſhoare, then ye come to a flat ground of black ſand, which is about a mile in length, about a little Canon-ſhot from the wall, ye have ſix fathoms water, with black ſand on the ground, this ſtrand is commonly called the great Houth-Bay, or Wood-Bay, becauſe there is ſometimes found much old broken wood: Hereby landwards in lyes divers flat hills of black earth and few ſtones, here is the land at his ſmaleſt, for being on the top of this hill, and ſhips ſayling on every ſide of it, ye could make them hear your voyce both at once.

Weſt-

Weſtward from the end of this great Hout-bay, where the land lyeth ſ. w. to the ſouth, there is another Rockie wall, a like to the foreſayd, ſo far as a piece of Canon can carry, further have ye another flat, called the ſmall Hout-bay, with an even ſhoare like to the firſt.

The ſmall Hout-bay.

A rock like a ſhip wit topſails.

A quarter of a mile Seawards in, by the South-end of that ſmal Houtbay, there lyet a rok, which to look to ſemet to be a ſhip with topſayls up: hereabouts is it flat water.

Southward from this ſmall Hout-bay there lye many Rocks, and hills in the Sea, there is likewiſe a ſtay rockie wall; between this wall and the rocks is a paſſage that runs in Sea ſouth ſoutheaſt on, called the Bears-gat, where within 4 fathoms ye have ſtonie ground. Ships could come in to ly there, but there is no anker-ground.

The Bears-gat.

A Mile and a half ſouthweſt ſoutherly from the aforeſayd Rock that ſeemeth like to be a ſhip, there lyeth another Rock of that ſame faſhion, yet not ſo ſharp above as the other, this lyet but a ſmall canon-ſhot from the land: beſides this there are many other little Rocks (where on are abundance of folws) ſtanding out in a corner: between this and the Bears-gat is the wall roug and Rockie, & ſometimes here and there ſmall foot-ſtrands whereon ye can not come with your boat: and from thence beings the land to be higher and ſtonier, for from the aforeſayd corner Seawards in it is Rokie and ſtonie, and landwards in full of hills and mountains; in time of needye may bring your boat to the foot of the hills: half a mile further there lyeth more ſuch Rocks, ſtayly deſcendingh to the water; alonghs the ſhoare, ſo far from land as a ſmall piece of cannon can carrie, it is commonly 15 or 16 fathoms deep.

The matter of 3 miles ſouth and to eaſtwards, from the ſouth or Weſt-corner, there lyeth a Stoone, which at the undeepeſt hath about eleven foot of water, which ſtone in circuit, is about ſo bigh as man can throw a ſmall-ſtone.

A Stone

Lucas Bouwenſon from Delfs-haven hath with calm water broke the ruder of this ſhip there on; about this ſtone goeth commonly a hollow water.

The length of half a mile northeaſtward from this ſtone ye have uneven ground, for caſtingh your ſound-lead one time ye can have but 7 fathoms, and at the other time ye can ſound 35: From this ſtone towards the land falleth the ground by degrees of to depth of ſix and tirthye fathoms and deeper, yea ſo far from the wall as a ſmall peece of canon can carrie, ye have fourſcore fathoms water, with ſoft clay ground: but about the Stone the ground is ſtonie and ſandie.

Claes Dirckſen Seyn from Wijck-wrote in the year after out redemption 1616, that about 11 or 12 miles ſouth-ſoutheaſt from the South-Corner of the Iſland, he found five and thirtye or ſix and thirtye fathoms, with black moule ſand, and ſmall ſtones.

John Sybrantſon Pael-man writes, that ſoutheaſtward from the ſoutheaſt-corner of the Iſland about 2 miles he found Rockie ground, my neighbour had once 60, and y had but 30 fathoms, ſo that it is very uneven there.

About a quarter of a mile northweſtward from the South-corner, there ſtands a Rock high above water, with ſundrie other little Rocks by him, which are commonly called the 7 or 5 Rocks, when ye come from the north ye can eaſily paſſe through between them: hard by the land there lyeth a Holmken little above water.

The five Rocks.

From theſe 7 or 5 Rocks till near under the wall dryeth it up from 30 to 5 fathoms.

From the ſouthwall north-northweſt a ſhort mile the land falleth out with a Corner, commonly called the Low-ſouth-corner, on the ſhoare is it low, and there lyeth the ſloops thats kee watch.

Between the South-corner and this corner there are ſeverall infalls, with a low ſhoare, commodious for boats to come by, in the infalls is it ſandie-ground, 6 or 7 fathoms deep.

Between this & the South-corner lye ſome ſmall Rocks, ſome above & ſome under water: from thence about two canon-ſhot is the land ſomewhat croocked to an infall, which is commonly called, the Bocht of Guinea.

The Bocht of Guinea.

From this foreſayd Bocht northeaſt northward about half mile, come ye into the South-bay, a leſſer Bocht as the aforeſayd, there where wont to ſtand ten tents in this bay, for the handling of Fiſh-oil, but in one year the Sea waſht a way three tens, thirteen chaloups, tus & oily-veſſels pertainlingh to the Chamber of Amſterdam, it waſht a way licke-wiſe moſt of the ground whereon they ſtood, wherefore thoſe from Amſterdam did delve a large peece of ground the ſommer followingh, whereon they have ſet two tents.

A fore this Baye ye have from nine to fifteen and ſo forth to eighteen fathoms, with black ſandie-ground, a little further of ye have five and twentie, yea thirtie fathoms, with ſhort ſtonie ground; and again ſo far as a ſmall piece of Canon can reach ye have four ſcore fathoms, and ſoft ground.

Between the Bocht of Guinea and the South-bay the wall is very ſtay, ſtonie, and Rockie: when ye ly on fifteen fathom afore this Sout bay, then ye can ſee throug between the land and the Fowlie-rock, or Vogel-klip.

Some two Canon-ſhot from this Fowlie-rock into the Bocht there lyeth a ſmall Rock: and on land there is a Red-hill; in the a foreſayd Bocht there lyeth a channell, whereon ye may lay four or five chaloups.

Fowlie rock. Redhil.

The matter of a mile northeaſtward from the South-bay, ye ſhall finde a little Corner, then ye have a gate or entry where ye can row throug from the mountains into a Kolck or depth, there ye have ſo much room as to lay ſome 20 chaloups on; and it is very convenient for the waytingh on whales: this is called of Sea men the Hoepſtock-Bay.

The Hoep-ſtocks Bay.

A large canon-ſhot from this Hoepſtocks-Bay ye ſhall finde a Corner where there many ſmall Rocks, (which are called the Rudſen) from thence to the Red-hill the wall is Rockie and Stonie.

The Rudſen

The matter of a mile northeaſt norther lye from the a foreſayd Rudſen, there is an out lying Corner, commonly called the Walruſh-gate, without or rather at the which there lyeth the Brielliſh-ſteepel, between theſe twoth lead hath a great infall, which is commonly called Northbay, and is the moſt convenient place of alle for the handling of fiſh-olie.

Walrus gate. North-Bay.

A quarter of a mile from theſe Rudſen or ſmall Rocks towards the Bocht, there is a flat place, which is called the Wood-bay, becauſe of this flat the land lyeth high, this flat is a ſhort quarter of a mile large, between this and the Walruſh-gate there lyeth a great flat Channell, whereon lye all the tents and kettles of the chambers of Holland and Zeeland: this Bocht hath a flat ſandye-ground, where the ſhips may lye at anker on 15 or 16 fathums water, about a canon-ſhot from land. In the fore-ſommer the ſhips lye near on land within the Bay on 8 or 9 fathoms water.

Wood Bay.

From the Brielliſh-ſteepel the land lyeth eaſtward up, and hath for a mile flat ſtrand, which is very convenient for chaloups to keepwach: the a foreſayd corner of the Walruſhgate is a very high & ſtay towards the Sea; at the end of the a foreſayd mile, ye finde nothing but Rockie ſtay and without any ſtrand, (& which is wort to be made mention of) a canon-ſhot from thence ye have a ſtone, on mention of a ſteepel.

At the end of this a foreſayd land a little foreby the ſteeple, there ye finde a little infall, which is called Mary-Mus-bay, becauſe that Mary-Mus from Rotterdam, of happye memorye, was the firſt that everſent a ſhip there to boyle olye: there is a very commondious ancker-ground, for about a canon ſhot from land, ye have 5, 6 or 8 fathoms water: and a far way Seawards in ye have ſmooth water, likewiſe ye have a ſhoare fit for all kinde of commodites uſeable for boylingh of fiſh.

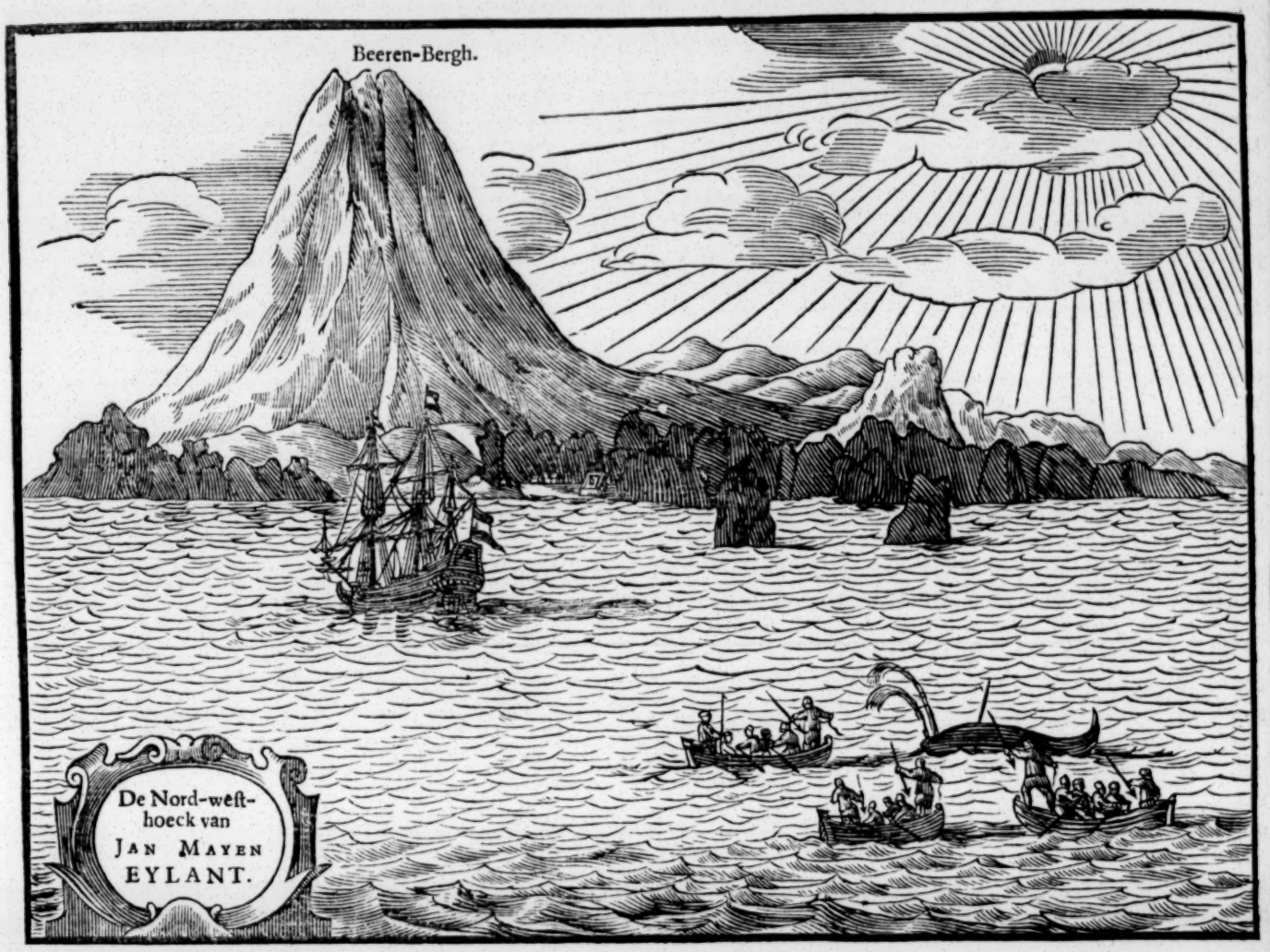
The Mary Mus Bay.

A little landwards in ye have a Pool, where out ye can take Fiſh, yea, ye can bringh your boat from ſhoare into that ſame Pool.

From the Eaſt-corner of Mary-Mus-bay the foot of the mountains ſtreatches themſelves in Sea, very ſtay and high towards the weſt-ſtrand or ſhoar.

From the foot of theſe mounrains, ſettingh your courſe northeaſt northerly for the matter of a quarter of a mile, ye have a flat ſhoar, where aforetimes there hath ſtood a croſſe on a grave. Between thoſe two the land hath a great infall, & hard under wall a ſtonie ground, the wall of it ſelf is flat and ſandye, ſo that a man might have occaſion on ſeverall places to boyl Fiſh.

The Northweſt-Corner.



BEſides this a foreſaid bay 2 Muſquet-ſhot from land, ye have nine fathoms depth; off-ſayling ground to the ſeven fathom: about a Muſquet-ſhot further ye have good ſingle ſandy ground: but when ye come to have 25, thirtie or fiftie fathoms, there ye have foul ſtonie ground, which continueth till ye come ſo far in Sea, that ye can ſee both the Corners of the land: half a mile from the land ye looſe the ſtonie-ground; again hard under land, where ye can ſee the ground, it is ſtonie.

From the Croſſe to the next Yce-hill, it is over all flat ſandy ground, and in ſome places ſtonie, it is about half a mile broad, and ſome places are fit to lay your boats on that keeps watch, but it is not convenient for anckeringh of ſhips, for deepneſſe.

From the Northweſt-Corner towards the eaſt ye have a ſtonie and ſtay wall, a quarter of a mile in length, where ye finde a convenient litle by, whereon ye may ſet one kettle to boil fiſh in: but be cauſe a ſhort Canon-ſhot from thence it is well 300 fathom deep, therefore it is inconvenient for ſhips to ly there.

From thence runs the wall, well a half mile in length eaſtwardly up; at the end where of there is a little bay, where ye could ſet a kettle and lay a boat on watch, but a ſhort canon ſhot from the land, it is well 300 fathoms deep.

From thence to the North-Corner, which is half a mile, on the ſhoar it is ſtonie, knottie and ſtay.

On the north-ſide of this Iſland the yce lyes ſometimes ſo near, that if ye would ſayl from hence to Spits-Bergen, ye ſhoulde forc'd to ſet you courſe 40, 45, yea ſometimes 50 miles, northerly about; and ſometimes ye can ſayl right northwards from this Iſland well 45 or 50 miles, to the heigth of 75 gra. norther bredth, before ye can ſee any yce.

By fair and clear whether ye can ſee the Bears-mountain when ye are thirtie miles from it. Now adayes there are not ſo many fiſh taken about this Iſland as was wont, becauſe they run now more towards the north then they uſed to do.

At John Mayes Iſland the veriation is a ſtroke & a half northweſtward.

Of the Tydes and flowing of Streams.

In the South-bay a ſouth ſoutheaſt and north northweſt Moon, according to the Hollands Compas makes high Water: The floud flows from the ſouth running northwards, & ebbes contrarily.

Situation and Courſes.

From Hitland to John Mayens Iſland, n. & n. w. at the half ſtroke	160 mi.
From the north-end of John Mayens Iſland, to the North-cape, eaſt ſomewhat northerly, but little	170 miles
From the north-end of John Mayens Iſland, to the ſouthermoſt-poynt of Spitsbergen, weſt northweſt, half a ſtroke northerly	165 miles
From the ſouth-end of John Mayens Iſland, to the Iſland Gryp, on the Liet of Dronten, northweſt, a little more northerly	147 miles
From the ſouth-end of John Mayes Iſland, to Langenes, the northermoſt Corner of Yce-land, ſouthweſt halfe a ſtroke weſtward	111 miles
From the north-Corner to the South-Corner, n. e. & n. e. eaſterly	9 mi.
From the North-Corner to the Southeaſt-Corner of the little Sandiebay, northeaſt northerly, and north northeaſt	2 miles and a half
From the little Sandiebay to the Eyer-Iſland, or the beginningh of the great Hout-bay, eaſt ſoutherly	1½ of a mile
From the Eyer-Iſland to the firſt Rock that is like to a ſhip with her ſayls, ſouthward weſterlye	1½ mile
From the firſt Rock to the other Rock which is alſo like to a ſhip, weſt & a little ſoutherly	1½ mile
From this ſecond Rock to the South-Corner, ſouthweſt	2½ mile
From the South-Corner to the five or ſeven Rocks, northweſt	¾ mile
From the South-Corner to the low South-Corner or the Hoyberg, the courſe is north	1 mile
From the Hoyberg to the South-bay, northeaſt	1¾ mile
From the Fowlie Rock to the Hoepſtock-bay, northeaſt	1 mile
From the Fowlie Rock to the Rudſen northeaſt ſcarce	1¼ mile
From the Rudſen to the Brieliſh-Steepel northeaſt, northerlye	1 mile
From the Brieliſh-Steepel to Marie-Mus-Bay, eaſt, northerlye	1¾ mile
From Marie-Mus-Bay to Muyes ſecond Croſſe-Corner, northeaſt	1¼ mile
From Muyes Croſſe-Corner to the North-Corner, eaſt	2½ miles

Heights.

The North-Corner lyeth on the high of	71 grades 23 minutes
The South-Corner lyeth on the hight of	71 grades.

Thus

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng.e en Fra.e mylen 20 in een graet

Noordhoeck

Oosthoeck

1e Ysbergh

2e Ysbergh

3e Ysbergh

Beeren bergh

Muyens 2e Cruys hoeck

Noordste Ysbergh

1e Cruys

Clovne sand bay

Ever Eyland of Vogel Clyven

Mary mas bay

Groote

Mout bay

Briefsche toren

Walrus gat

Clovne Mout bay

Noorder-ste Engelsche bay

Klip als een Seyl van een Schip

Kout bay

Rudsen

Koopstocks bay

Klip als een Seyl

Roo bergh

Vogelklip

Suyd bay

Boght van Guinea

Roo Zuydhoeck of Ysbergh

Zuydhoeck

Dese seven kliften

Pas-caert van

IAN MAYEN EYLANT.

Vertoonde alle de gelegentheyt van alle bayen, inbochten, dieptèn en en droogten.

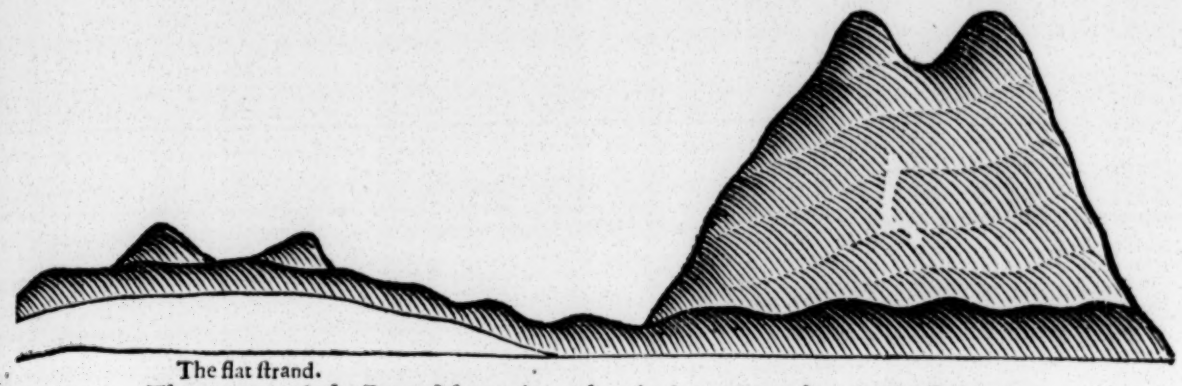
t'Amsterdam by Iacob Theunisz op't water inde Lootsman.

Duytsche mylen 15 in een graat
Spansche mylen 17½ in een graat
Engelsche en Fransche mylen 20 in een graade

Pas-caert van
SPITSBERGEN
met alle haer Rivieren, havens, bayen,
sanden en droogten.
als mede
Hoe men C. de Uytkyck op Spits-bergen
van de Noord Caap en Beeren Eylandt bezeylen sal.

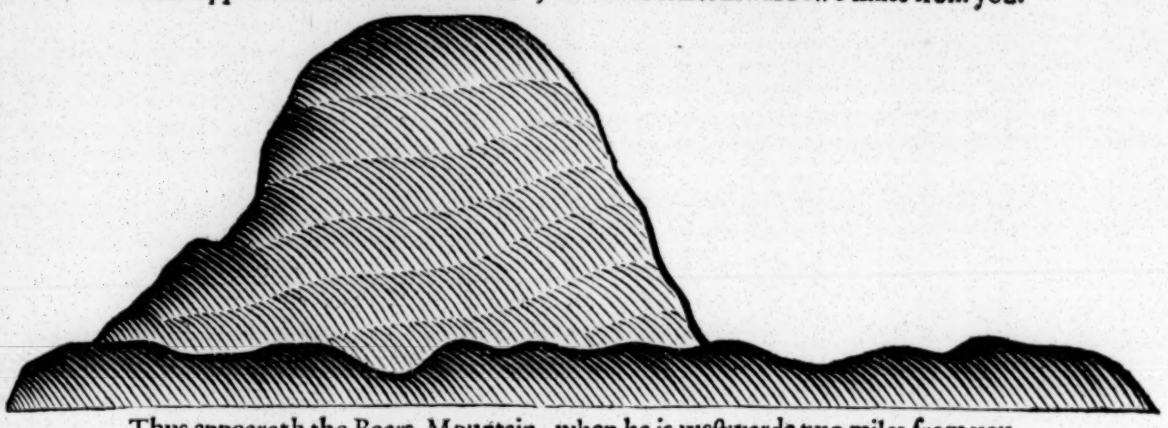
SPITSBERGEN
Amsterdamsche Eyl.
Deensche Eyl
Zuyder gat
Vogels hoeck
Vlacke Point
Mossen Eyland
Hollandsche bay
Engelsche bay
Magdalena bay
Noordhoeck ofte Vogelhoeck
Kars sond
Engelsche bay
S. Jans haven
't Voorlandt
Behouden haven
Vs sond
Groene haven
Klock bay
Schoon haven
Rhee volt
Hoorn sond
C. de Kyckuyt. Whale Backs
Beeren Eylandt
Barentsz Hoek
Barentsz bay
Boere bay
't Schip d'Eenhoorn bay
Whales Wicks bay
Lommebergh
Wyde Ianſz water
C. Blanco
Duske
Whales head
Dove bay
Black Point
Ryck Isse Eylanden
Halvemaens Eyl.
Hoopen Eyland
Straet van Vitschen
Bransewyns bay
7 Eylanden
Noord Caap
Cancu Sandan
Dana fiord
Ruſſie
Vaerſchelen
I. Kromsonde
Lerfiord
Kabelfiord
Tomaksfiord
26

Thus appeareth the Land in your ſight when ye are on Sea.

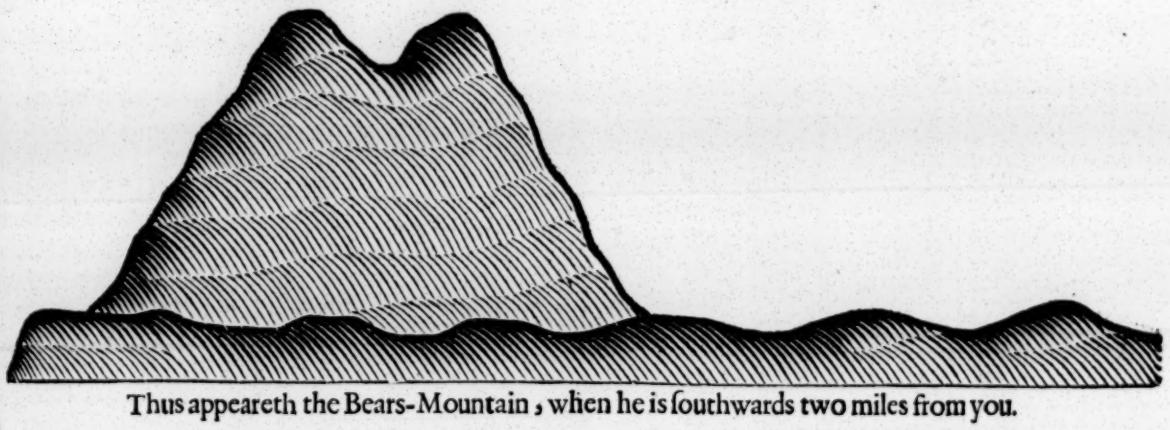


The flat ſtrand.

Thus appeareth the Bears-Mountain, when he is northward two miles from you.



Thus appeareth the Bears-Mountain, when he is weſtwards two miles from you.



Thus appeareth the Bears-Mountain, when he is ſouthwards two miles from you.

The third Demonſtration,

Containing

The Situation of the Bears-Iſland, the Hoopen-Iſland, as alſo of whole Spits-Bergen, for ſo much as they are northerly and eaſterly known as yet.

WHen ye come from the nord-cape the Bears-Iſland, your courſe is n. n. w. and n. w. northerly, about 54 or 55 miles, Syroy then lyes rigt n.n.w. from the Bears-Iſland, (upon aforeſaid North-cape there are people who lives till y be ſeventy or ſcorce years old, they never at any bread, hey live on Fiſh and Fleſh.)

he Indwellers of the North-cape towards Finmarken that that Bay never freeſes, ſo that they get their living t by taking of Fiſh and drying the ſame.

he Bears-Iſland is reaſonable bigh, ye can row about it e ſpace of ſix hours; at the n. w. corner there of comg within to it, ye can finde ground of 40 fathoms, and nearer the land ye come how undeeper it is, for within non ſhot to it ye are on 15 fathoms.

Out of the Bears-Iſland ye can have refreſhment of waalthoug it were for an hundred ſhips: there groweth wiſe brave herbs, where of ye can make ſalate, which refreſheth a man extraordinarily: there are alſo may fowls: ye finde there Coals to burn, not unlike to the Scots Coals.

At the northeaſt corner there lyeth a little Bay, where ye can ly ſafe after a little Iſland, cornerwindes from e. ſ. e. to w. ſ. w. blows flat into this bay, but as for other windes ye ly ſafe; ye can come into this bay at the ſouth-ſide there of, at the north-ſide it is almoſt faſt to a great Iſland, excepte a narrow paſſage where ye can come handſomely throug with a chaloup; there abouts is not other Inham to run into time of ſtorme, but round about ye have Ankerground; yet ye muſt ly in open Sea, the ground is durtie, and there goeth a hollow Sea, ſo that is not good to anker there in time of ſtorm: the floud floweth commonly from the ſ. w. toward the n. e. a ſ. w. and n. e. Moone make hig water: and it floweth commonly four foot up and down. At the time of year ye can take good kods, and haddohs at the Bears-Iſland.

The

The East-Coast of Spits-Bergen.

FRom the Bears-Island to Hoopen-Island, the course is northeast northerly as is suspected two & thirtie miles; the Island is 7 or 8 miles in length, & not above three musquets shot broad, it lyeth east northeast, and w. s. w. at both sides, so weil at the south as the north: but on the northside alongs the whole Island ye have good ancker-ground, on 20 fathoms, a great half mile from land, on the s. w. end and the northeast end ye have some flat ground, where the Walruthes use to come, otherwise it is overall stay and ragged, but on the southside it is overall stay & rockie, & not fit for ankeringh, of which ye must take heed: yet ye may sayl within half a mile alongs the coast without danger, but there is nothingh on this Island that serveth for te frethment.

There hath been some who have sayled beyond the Hoopen-Island e. n. eastward 24 miles, but found no land, found abendance of Yce, and could reach no ground.

The Hoopen-Island appareth to you a five Mountains, where of the northeast end is the highest.

At the northeast-end of Hoopen-Island there is a valley wel a quarter of a mile in circuit, whereon reforts a great number of Walruthes, yea sometimes it lyeth whole full of them: there are likewise an innumerable number of Seamews and other Sea fowls, they flie sometimes in such multitudes, that they hinder you from the sight of te firmament above your head; so that the land is wel enough to be known by the off and on flying of those fowls seeking food for their young ones.

From the northeast corner of Hoopen-Island to Black-point, the course is north-westerly, some ten miles; but before lye come to Black-point, on the southeast-side there lyeth a great many small Island; from the mast of your ship ye can tell sixtie of them, but indeed there are so many as if they were sowen, and that all alongs the coast so far as ye can see; and that towards the northeast and west northwest, as we suspect, altogether stones and rocks.

When Black-point is four miles north easterly from you, you see a great Island, in comparison of the other: when ye are a large musquet-shot on the south-side of this Island, ye ly on 30 fathoms stitch-ground, it is a stay ground for the length of a ship more Seawards in, ye have 60 fathoms; within the aforesayd Islands towards land, ye can see open in Sea, where the Islands are not so close together.

A mile further east from the aforesayd great Island, without the low Island, there lyes a great many blindes in Sea, where ye can have no anker-ground, the Sea beats much on those blinds when it is hig water, yet there is no great floud.

On the northeast corner of Hoopen-Island there goeth as strong a stream as there doth in Texel, the floud commeth from the s. s. w. and runs along the land. A. s. s. w. winde maketh there the highest water: on the aforesayd Island is no refreshment to begot, so far as yet known, but is al stonie low land: neither can ye see the foresaid Islands from farre. But Black-point is a very high land, so that when it is fair weather ye can see it from Hoopen-Island: there about ye have thick mists: yea sometimes for the spaces of five or six dages, ye see not once the Sun, but all thick cold mist.

From Black-point, so lyeth the coast eastward on, northeast up, so far as ye can see, to Wijbben Janſons water west northwest, but the whole east along lyeth full of rocks and little Islands, the floud cometh out of the southwest by the Cape on the east-side of Look-out, & runs northeastwardly up to Wijbben Janſons water.

Ye can scarcely lay on by the east-side of the Cape Look-out, because of the Yce that commeth from the east of Nova Sembla, and runs alongh the coast, (as if it were fast land) like to a banck, so that ye can scarcely come through.

The West-Coast of Spits-Bergen.

Look out, or Kyck-uyt.

FRom the Bears-Island to the Cape Loock-out or the south corner of Spitsbergen, is the course north-northwest, somewhat westly, about eight and twentie miles.

There lyes a stonie channell on the southeast Cape of Look-out Seawards in wel four miles in length, on some places when the water rages ye can see it beat on the channell, ye can sayl trough between this channell & the land both with great danger.

From the cape Loock-out to the south-end of the fore-land, the course is north north-west six or seven and twenty miles; between both lyes Horn-zond, Klock-bay, Belzond and Yce-zond.

From the cape Loock-out to Hoorn-zond the course is north-northwest six miles: it is between both stonie and foule ground.

The Hoorn-zond is a wide bay, and lyes without danger of all kinde of windes. The English have their tents standingh there, and comes every year to take fish.

Between Horn-zond and Klock river (by others called Belzond) lyes the coast northwards westerly & north-northwest, all alongst the coast it is stonie and foule, and full of rocks and craigs.

Within the Belzond lies sundrie riveres and havens, and a little within the corner on the north-side, lyes Willem van Muyens haven, (that is so called, because Willem van Muyen had fisht there aforetimes) a little northwards runs a river landward in, which is called the Undeep River whereon lyes the old Harbour, where aforetimes there have stood some tents; a little more southerly lyes Michel Rogders river, and more southerly from the a foresayd river lyes Sardammer river, which runs a great way landwards in.

From the Sardammer river westward, or sayleng through Klock-bay, a little about the south corner there lyes a fair harbour, which because of it is convenience, is called the Fair-haven, which is a brave road, and in time of need a man might keep a ship there without anker or rope it is clean slipperie ground.

From the Klok-bay to Yce-zond lyes the coast all northwesterly, and northnorth-west, between these two points durtie and foul, without any bochts or infalls, yet when ye come a little about the south corner ye finde there Green harbour, there is a good road, ye may frely anker there, so hard under the wall as ye please, & that on eight ten ot twelve fathoms water, it is there every where clean flat upgoingh ground, and ye lye there befreed from all sorts of Windes.

When ye come a little about the north corner ye find the Safe haven, which lies northward up, and sayling a quarter of a mile upward, ye come to a good road, which is called the Safe-haven: the ground is somewhat stay but clean the ye may let anker fall, on thirtie fathoms, and yet secure from all windes.

Farther westward up, the farewater runs so far up that never any boats yet hath been at the end of it; for it is most commonly the whole sommer through full of Yce but if ye shun this north wall, there is no danger ye need to fear.

The Yce-zond is a wide river to come into, when ye come into the Hoorn-zond or Safe haven, ye get into the Yce-zound, and when ye perceive that the yce begins to come out of the south, ye must make ready to list ancker, otherwise ye should be besiedged with Yce so that ye cold not come fort, and chiefly in the end of sommer.

Whileſt ye sayl this passage upward, ye shall find great many Rocks, of which ye can take some: and all by the shoar ye have such a multitude of fowls on the rocks where they breed their Young-ones, that by their dung the rocks grow, as if were green: there growes likewise a sort of herb, which is called Slae, and is a like to scurvy grasse, the which herb tastes even as salate, and refreshes a man extreamly.

From the yce-zond to the south-corner of the Foreland the coast lies north-west, yet ye must shun the south-corner because it is a little foul. There lies a rock southwest from the land off seawards in, which is a quarter of a mile long. The Foreland lie south and north from the south and north corner, or sowlie corner, wel 15 or 16 miles length. A mile and a half be north the south-corner of the Foreland there lies two Islands, the one a can on shot of the other, and as far between them & the wall; on these lands there are many thousands of fowls like to Roggs and drakes, there are likewise a great multitude of eggs

be got. A great mile be north there lye a Rock of clear white ſtones (under which there are many great ſtones) this lyes from the wall Seawards in about a mile and a half. Three miles beyond the Perſh-Rif, there lyes a little Iſland near under the ſhoare, where likewiſe are many folws and egges to begot, between both it is reſonable clean, but towards the wall lyes ſome Rocks, wherefore ye muſt take heed that ye come not to near to the wall.

About the North-corner of the Foreland, between the maine land ye can caſt Anker on 20, 18, 15, 10, and 4 fatums, according as ye are far into it, but neareſt the Foreland.

At the faſt land lyes the Croſſe-bay, and ſomewhat forward ſoutherly within the Foreland there lyes the Engliſh-bay, where the Engliſh com a Fiſhing.

From the Folw-corner or North-corner of the Foreland to the Danes-Iſland, the courſe is northeaſt northerly, the matter of nine miles: under way lye Madaleenen-Bay, where ye have a good road at the South-corner of the Bay, but it is high ſtay land, and we caſt Anker commonly a little within the South-corner, yet ye may ſayl a little farther in, and let the Anker fall at the Northwall, for ye have every where good ground on 15, 20 and 25 fathoms.

The North-corner of the Madaleenen-Bay is the South-corner of the Engliſh-Bay, which is ſtonie and foul, and very dangerous for thoſe that know it not.

Madaleenen-bay.

From the Madaleenen-Bay, to Robbe-bay, the courſe is n. n. e and ſ. w. 2 miles, between thoſe two there lyes a low Iſland, which is called the Engeliſh Look-out, from whence a ſtonie Channell lyes, in length of a Canon-ſhot: ye can come throug this Channell, but with great danger.

Engliſh Look-out.

From the Robbe-bay (which lyes on the Danes-Iſland) to the South-bay, the courſe is north northeaſt about half a mile, we ſail commonly be north the South-corner of the South-bay into the bay, but when ye come into the South-bay, ye muſt ſhun the North-wall, for it is foul; in the in comming ye may go ſomewhat near the North-wall, and caſt Anker on 10, 15, 16 or 20 fathoms good ground, ſafe from all windes.

The Hollands or Maurits-Bay.



AT the North-corner of the South-Bay there lyet four ſmall Iſlands, of which the outtermoſt is the greateſt from the weſtmoſt part of thoſe four Iſlands, to the Hollands or Maurits-bay, the courſe is eaſt northeaſt a quarter of a mile, if ye ſhun the rocks, ye need fear no danger, except ſome rocks, otherwiſe is it a fair coaſt, for ye may ly at Anker under two from the wall as ye pleaſe, that a Canon ſhot or two from the wall as ye pleaſe, that on 15, 18 or 20 fathoms: if ye ſayl a little ſ. ſ. e. in, ye can ſee the Hollands ſhips lyingh at Anker a fore theyr Tents: but if ye would ſayl to them, ye muſt not come nearer the Southwall as where ye have 7 fathom water: and then ye come firſt where the Amſterdams Tents are, when ye are there ye may go as near the wall as you pleaſe, yea if there come an Yce, ye may make your two faſt on land, and need not fear any windes: then come ye to the Tents of the Chamber of Middelburg and Vliſſing, likewiſe where the Danes and other ſtrands: From the weſtermoſt Tent there runs a craig of, by the which ye cannot come, it runs moſt the whole paſſage over; and then ye ſee flat out of the Soudbay: on the ſouth-ſide of the a foreſayd craig there lyeth ſundrye little Iſlands, as alſo many ſtones under water: it where poſſible to ſayl from hence out of the South-bay to Sea, but it muſt firſt be marked with beacons or tuns, becauſe it is a narrow paſſage: from the weſtmoſt Tent out of the South-bay is about a mile in length, and is called the Amſterdams-Iſland, becauſe their Tents ſtands there: the place where the Tents ſtand, is about a Muſquet-ſhot in breath, after which runs a Kinde of water or a ſtil ſtanding Pool.

Amſterdams Iſland.

Eaſt ſoutheaſt and eaſt northerly from the Amſterdams Tent lye two Yce-Mountains hard on ſhoare; ſometimes the Yce comes down with ſuch a force, that they make the ſhips that lye a fore the Tents to ſturre: the land within the bay is very hig and ſtay, as likewiſe it is by the Amſterdams and Danes Iſland, althougt not ſo high.

Devils Island. At the Sout-corner of the Hollands-Bay lyeth a little Island hard under-wall, called the Devils-Island; ye need net fear it, for ye may sayl hard by it: From that same corner to the Vogelsangh, the course is east northeast a great mile: The Vogelsang is an Island, clean round about, for ye may let anker fall where ye will. From hence e. s. e. a Canon-shot lyeth the Island met de Kloof, or Kloven Island: so called, because the Mountain that lyeth on shoare is cloven, and lyeth between the Vogelsand and the a foresayd Island.

The Cloven Island.

Between the fast land and the a foresayd Island, there lye divers Islands, who because of their multitude, are called Archepelliga; in these Islands are diverse roads to be found for those that are acquainted there, but none to be had at the fast land.

Archepelliga.

The Zews Uytkijck. From the cloven Island to the Island called the Zews-Uytkijck, (or Loock-out:) the course is southeast easterly about a half a mile: between both there lyeth a little round Island, called the Geese-Island: when ye come thyther ye must sayl through between this and the Zews-Kijck-uyt, keeping the Ganse-Island a Canon-shot from you Seawards in: at the Zews-Island ye have good Anker-ground and lyeth on twentie or fifteen fathoms good Ancker-ground.

The Geese-Island.

That passage which runs between the Islands and the fast land, ends between the Zews-Island and Moniers-bay: it is possible to sayl through the Hollands-bay, but onely for those who are used with those passages.

Moniers-bay. From the Zews Uytkijck to Moniers-bay, is the course southeast a half mile, and the passage is almost a quarter of a mile broad; and on the south-side there lyeth a haven called the Ever-(or Egge) haven; Moniers-bay it not fit to sayl into, because it is stonie; foul and Rockie, and seldome used.

The Egges-haven.

On the east-side of the Zews-Kijck-uyt, in the after-sommer, ye have often southwest windes with great calmnesse; and in the fore-sommer northerly windes; althoug ye have had a good gayl at Sea: how farther east so much worse: the sloud floweth from the south toward the north all alongs the coast: it floweth wel eigt hours, & ebbes in lesse then four. All the Yce that cometh with an east winde from Nova Sembla, cometh with a great force a long the North-coast of the Cape the Kijck uyt, into the Hollants-bay; yea so hard that the ships have enoug to do to shun it; this is always so when ye have often east windes in the fore-year; then it is driven to the west-side of the Cape the Kijk-uyt, where the yce lyeth and swimmeth till it be dryven by the south-sloud untill the coast of the Foreland, so that all the bayes are filled there with, from thence it runs northward on, not knowing whether.

The Red-bay. From Moniers-bay to the Red-bay, the coast lyeth east southeast 4 Miles, the coast is every where foul and stonie, hard under Moniers-bay it is a low land, yet by piece and piece climming upward to the Red-bay. The East-corner of Moniers-bay is called the Low-corner.

The Reene-velt. From the Red-bay to Reene-velt, the course is e. s. e. 5 miles; the coast is not clean, yet ye get ancker-ground on 20 or 18 fathoms alongs the Reene-velt, yet ye shall finde no clean ground.

The Reene-velt is low even ground, in the middle there of lyeth a little round hill, which when it is from the s. s. w. from you, ye have all alongh the coast of Reene-velt Anker-ground, as is a foresaid.

On the east-side of Reene-velt there runs a broad sayl-water, called the East-wijck, at the end of which never any hath been as yet, this water runs every far landwards in, and is well three miles broad. On the East-corner of the Easter-wijck lyeth the Gray-corner, and lyeth from Reene-velt southeastward three miles, as is a foresayd. The Reene-velt lyeth from the outermost of the Islands east southeast ten miles. From Reene-velt northeast northerly four miles lyeth the Moffen-Island where are many Walrushes.

Gray-corner From the Gray-corner with a southeast course, ye sail to the Southeasterland on, over a bay which is 4 miles broad which bay runs south, and south southwest.

The Easter-land runs e. n. e. upward, but it is yet unknown how far, it is a even land, reasonable high, but of divers sorts of earth, a like to Spits-bergen, so that it is thougt to be an Island.

The whole West-coast of Spits-bergen is wholy high uneven land.

The difference at Spits-bergen is 22 grades nordwesterly, when the Sun is s. s. w. he is at the highest there, according to the Hollands Compas.

In the fore-sommer ye have there commonly easterly, and in the after-sommer southerly windes.

Likewise on the West-coast of Spits-bergen in the fore-year ye have commonly east and n. e. and in the after-year most southerly windes.

Of the Tydes and flowing of Streams.

At the West-coast of Spitsbergen the tyde keeps no constant course, but a floud with a northeast & southwest Moone maketh the highest water; it floweth with a dayly tyde 5 and with a floud 6 foot.

A southwest and northeast Moone maketh highest water at the Bears-Island, the floud commeth commonly out of the southwest and floweth towards the southeast.

A south southwest and north northeast Moone maketh the highest water on the Northeast-corner of Hoopen-Island, & it floweth there as hard as in Texel: it commeth out from the south southwest and runs along the coast to the Cape the Kijck-uyt: the stream floweth from southwest northeastward to Wybbe Jansons water.

On the east-side of the Zews-uytkijck commeth the stream from the south, and runs to the north; it floweth 8 hours, & ebbe scarce four.

Of the Depths.

At the Northwest-corner of the Bears-Island ye have 14 fathoms, and dryeth more and more up till ye be within a Canon-shot of land where ye have 15 fathoms water.

Situation and Courses.

From the North-cape to the Bears-Island the course is northwest and northwest somewhat westerly 54 or 55 miles
From Suroy to the Bears-Island north northwest 50 miles
From the Bears-Island to Hoopen-Island, n. n. e. northerly 32
From the Southwest to the Northeast-corner of Hoopen-Island, east northeast 8 miles
From the Northeast-corner of Hoopen-Island, to Black-poynt, north somewhat westerly 10 miles
From the Bears-Island to the Cape the Uytkijck, north northwest somewhat westerly 28 miles
From the Cape the Uytkijck to the south-end of the Foreland, north northwest 26 or 27 miles
From the Cape the Uytkijck to Horn-zond, north northwest 6 miles
From Horn-zond to Bel-zond, north somewhat westerly and north northwest 7 miles
From Belzond to Yce-zond, north westerly 11 miles
From the south-end to the north-end of the Foreland, north 15 or 16 miles
From the North-corner of the Foreland to the Danes Island, northeast northerley 9 miles
From Magdalene-bay to Robbe-bay, n. n. e. 2 miles
From the Robbe-bay to the South-bay north northeast half a mile
From Devils-Island to the Vogel-sang, e. n. e. a large mile
From the Vogel-sang to the Zews-Uytkijck, s. e. easterly a large mile
From the Zews-Uytkijck to Moniers-bay, s. e. half a mile
From Moniers-bay to the Red-bay the course is e. s. e. 4 miles
From the Red-bay to Reene-velt east southeast 5 miles
From Reene-velt to the Gray-corner southeast 3 miles
From Reene-velt to the Moffen-Island, n. o. northerly 4 miles

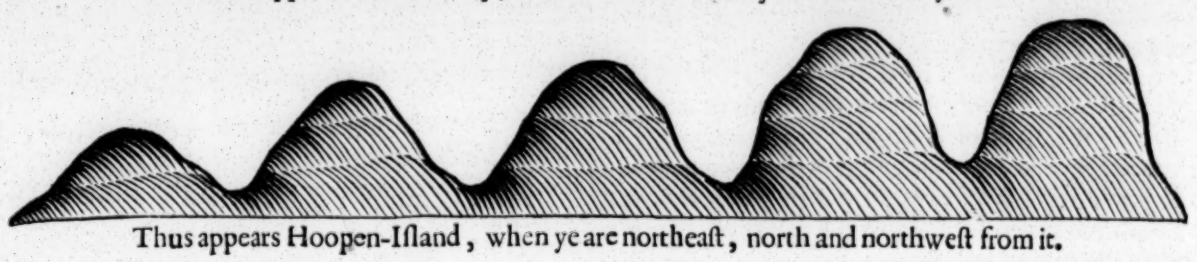
Heights.

The Bears-Island lyeth on 74 grades and a half
The Cape the kijck-uyt leyth on 76 grades 36 minutes
The North-corner of the Foreland lyeth on 79 grades 20 minutes

Thus appears the Land in your ſight when ye are on Sea.



Thus appears the Red-bay, when the Round-hill lyeth ſouth from you.



Thus appears Hoopen-Iſland, when ye are northeaſt, north and northweſt from it.

The fourth Demonſtration,

Containing

A Deſcription of Orlogenes from the Cape of Candenoes to the Weſt-Coaſt of Nova Zembla and the Waygats.

ORlogenes and the Cape Candenoes lyeth ſeverally n. e. and ſ. w. 35 miles. The Corner of Candenoes is wel enoegh known; there ſtands five great Croſſes up for tokens, which when ye come by; ye can perfectly perceive that the land fayls you, on the one ſide ſ. w. toward the White-Sea, and on the other ſide ſ. e.

About 10 miles eaſterly from Cabo de Candenoes, there lyeth an Iſland called Morſonowits, from thence eaſterly there lyeth a great Inham landward in, which is a flat undeep water, with all a deceit full ground. There hath been divers ſhips who have ſayld a miſſe here, thinkingh that they had been in the Mouth of the White-Sea, therefore it is neceſſarie to diſtinguiſh the land, for the Ruſſiſh Coaſt eaſtward Candenoes is very ſandye, and a flat ſhoar, and the Coaſt of Lapland is hig, and full of Mountains. Into this Inham there runs a River from the land, throug the which ye can come in Boats to the White-Sea.

Beſides this Inham about 20 miles eaſt and eaſt ſoutherly from Candenoes, there lyeth an Iſland, called Colgoya which is 16 miles in length; ye may ſayl round about it, but on the ſouth-ſide, there of lyeth a crayg which comes from the eaſt, that ye muſt ſhun, becauſe it joyns to the weſt-end of this Iſland. There are a great many geeſe on this Iſland, which in the ſommertime are wholly naked having no kinde of feathers; they lay their egge under their ſtump or taile, and on the faſhion breeds forth their young ones: there are ſuch multitudes of thoſe Geeſe there, that the Ruſſes come which their Lodges or Boats to land, and takes of them by multitudes, and Salts them in Tuns.

From the Candenoes to the Iſlands Tuſſara the courſe is e. ſ. e. 32 miles, and between both lyeth this great ham. On the weſt-ſide of Tuſſara lyeth the Corner of Swelgenoes. From Tuſſara to the River of Colcova the courſe is eaſtward 5 miles, that is a good River, and ſome 12 foot deep, there is no other traffique there but that the Ruſſes comes from Colmogro and S. Nicholas with their Lodges to change their Wares for roughs Skins.

Five miles eaſtward from the River Colcova lyeth the River Pitſana, which is but ſix foot deep, and is not well known, little weſterly from this lyeth a drye banck, which ye muſt ſhun. Olivier Brunel coming from Nova Sembla lay here on ground.

Ten miles eaſtward from Pitſana lyeth the River Pitſora, that runs by the Eaſt-Corner in, ſouth ſoutheaſt and is deep ſix Holland yards: the land there is low and ſandye, on the Weſt-Corner there ſtands a Pack-houſe, whereon ſtands ſome Croſſes; when ye come within the River turn a little weſtward up toward the Packhouſe, and led anchor fall on 3 or 4 fathoms water, there is a great Poole or lake.

Ye muſt ſhun the eaſt-ſide of the river, for it is ful of ſand & banks. The Town of Pitſora lyeth 26 Dutch miles landward in: there is abundance of coſtly Skins and Criſtall.

Between Pitſora & Waygats lyeth Oltgyn, and without on the land lyeth two Rocks or little Iſlands, the one called Oranjen, and the other Graef Maurits: there ye may ly at ancker on ſix or ſeven fathoms. From the ſouth-ſide there comes a ſand bed off-ſailing, where ye have but three fathoms. On the eaſt and weſt-ſide of theſe two Iſlands, there is a great Inham, flat water; the land lyeth there in the round to the Corner of Pitſora all in one Inham: is from Pitſora to Waygats n. e. eaſterly 24 miles. Oltgyn.

Waygats, which is likewiſe called the Strait of Naſſowen, is a narrow paſſage throug which ye can ſayl into the Tartariſh Sea. It lyeth firſt eaſterly, and then northeaſt the matter of 6 or 7 miles, about midway there lyeth an Iſland, which ye can ſayl by on both ſides. A little within the Corner on the north-ſide is a brave bay, into the which ye can let Ancker fall ſo deep as ye pleaſe, to witt in 5, 4 and 3 fathoms, good ſtrong ground; toward the eaſt-wall ye have the deepeſt water, & ye ly there ſafe from all windes or Yceflouds. It hath been aſſayd at two ſeverall times to finde away throug this Strait, to ſayl benorth Tartie to come to the rigt Kingdomes of Cathy and China, & from thence to Molucquen, but all in vain, becauſe of the great yce that lyeth there the whole year, and never ſmelts, by reaſon of the conſtant cold. Waygats, Traen-bay.

From the eaſt-end of the Strait Waygats to the Inham of Oby, the courſe is e. ſ. e. and ſ. e. eaſterly 30 miles. On the eaſt-ſide here of the land lyeth n. e. 30 miles more, to the two norther Rivers, and from thence n. e., but how far, is not as yet known. Oby.

The Weſt-Coaſt of Nova Zembla lyeth from Waygat northward to Conſtint-zarck, n. w. about 40 miles. Benorth this falls it north eaſterly-ward to the Corne of Langeneſſe or the Staten-hoeck (or States Corner) and ſo forth n. n. e. n. e. and eaſt, n. e. to the Iſlands of Oranje; the northermoſt-part of Nova Zembla lyeth on the heighth of 77 grades and an half. Nova Zembla.

Of the Tydes and flowing of Streams.

From the Eaſt-ſide of Candenoes to the Iſland of Colgoyen, the Stream fals eaſt and eaſt ſoutherly, as likewiſe along that ſame Iſland; From Colgoyen to Waygats fals the Stream eaſt and weſt. Alongſs Nova Zembla the Streams, turns about with the Moone. Alongs Ruſland they come from between Candenoes and Pitſora out of the weſt and w. n. w. and ſo runs alongs Ruſland.

The Streams that comes to Waygats comes from Colgoyen and Nova Zembla, and falls with the reſt eaſt northerly throug the Strait of Waygats to the River Oby, ſo by this means the flowing and ebbing of the Streams keeps the paſſages of Waygats open, ſo that they are often without Yce, except boards of Yce that come from other places driving. But on the eaſt-ſide of Waygats the floud comes from the northeaſt, and falls in the Oby and Srait of Naſſow. The water Flows and Ebbs there, but keeps no conſtant courſe.

Of the Depths & Grounds, ſo wel on the eaſt-ſide as weſt-ſide of Waygat.

Along the whole coaſt from Candenoes to Waygats, it is flat upgoing ground, moſt ſand and faſt ground. If it be miſtie weather and if ye have 8 or 9 fathoms wather, then ye muſt know that ye are but three or four miles from the coaſt: but if ye have 30 or 35 or 40 fathoms, then ye are far enough from land: ſo is it likewiſe alongs Nova Sembla, and over the eaſt ſide of Waygats, but when ye come into the Mouth it grows flatter.

Of the Situation, and how every Land lyeth from another.

From Orlogenoes to the Cape Candenoes the courſe is n. e. 35 miles
From Candenoes to the Iſland Colgoye, the courſe is eaſt, ſoutherly 20 miles
From Candenoes to Swelgenoes, ſ. e. eaſterly 22 miles
From Candenoes to the Iſland Morſonowits, ſ. e. 10 miles
From Candenoes to Tuſſare, e. ſ. e. 32 miles
From Tuſſara to Colcova, eaſt 5 miles
From Colcova to Pitſana, eaſt northerly 5 miles
From Pitſana to Pitſora, eaſt and eaſt northerly 10 miles
From Pitſora to Waygats; the courſe is about n. e. eaſterly 10 or 12 miles
From Catsnoes to the Iſland of Solofky, weſt a little ſoutherly 28 miles
From Catsnoes to Warſiga, n. w. weſterly 12 or 13 miles
From Catsnoes to Polongi, n. w. northerly 17 miles
From the Iſlands of Solofky to Ombay in Lapland, north 24 or 25 miles
From Solofky to Warſiga, e. n. e. 24 miles
From Solofky to Polongi, n. e. eaſterly 38 miles
From Candenoes to Conſtintzarck in Nova Sembla n. e. ſomewhat eaſterly 46 miles
From the eaſt-end of Colgoyen to Waygats, eaſt 45 miles
From Pitſora to the eaſt-end of Colgoya, w. n. w. 32 miles
From the Lowland to the Stream-bay eaſt & weſt 4 miles
From the Stream-bay to Yce-havens-corner, eaſt northerly 3 miles
From the Yce-havens-corner to the Iſlands-corner the courſe is e. n. e. 5 miles
From the Iſland-corner to Vliſſinger-head, n. e. eaſterly 3 miles
From Vliſſinger-head to the Head-corner the courſe is n. e 4 miles
From the Head-corner to the corner of Begeerten, (or deſire) ſouth and north 6 miles
From the corner of Begeerten to the Iſland of Oranjen, northweſt 8 miles
From the Iſland of Oranjen to Yce-corner, w. & ſ. w. 5 miles
From the Yce-corner to the Cape the Trooſt (or comfort) weſt and weſt ſoutherly 25 miles
From the Cape the Trooſt to the Cape Naſſouw, weſt northerly 10 miles
From the Cape Naſſow to the eaſt-end of the Croſſe-Iſland weſt northerly 8 miles
From the eaſt-end of Croſſe-Iſland to Wilhelms-Iſland, weſt ſoutherly 3 miles
From Wilhelms-Iſland to the Blak-corner, w. ſ. w. 6 miles
From the Black-corner to the eaſt-end of the Admiraliteyts-Iſland, w. ſ. w. 7 miles
From the Eaſt-corner to the Weſt-corner of the Admiraliteyts-Iſland, w. ſ. w. 5 miles
From the Weſt-corner of the Admiraliteyts-Iſland to the Cabo de Plancia ſ. w. weſterly 10 miles
From the Cabo de Plancio to Lomsbay, w. ſ. w. 8 miles
From Lomsbay to the Staten (or States) corner w. ſ. w. 10 miles
From the States-corner to Langeneſſe, ſ. w. ſoutherly 14 miles
From Langeneſſe to the Cabo de Cant ſ. w. norterly 6 miles
From the Cabo the Cant to the corner of the Black-rock, ſouthweſterly 4 miles
From the corner of the Black-rock to the Black Iſland, ſouth ſoutheaſt 3 miles
From the Black Iſland to Coſtintzarck, e. & w. 2 miles
From Conſtintzarck to the Croſſe-corner, ſ. ſ. e. 5 miles
From the Croſſe-corner to S. Laurence-bay, ſ. e. 6 miles
From S. Laurence-bay to Meel-haven, ſ. ſ. e. 6 miles
From the Meel-haven to the two Iſlands, ſ. ſ. e. 16 miles

The Heights.

The Cape of Candenoes lyeth on 69 grades 30 minutes
I. Colgoya on 69 grades 10 minutes
The Rivers of Colcova, Pitſana, and Pitſora lyeth on 68 grades 40 minutes
Waygats or the Strait of Naſſow lyet on 69 grades 43 min.
The North-corner, which lyeth moſt northward of Nova Sembla, lyeth on 77 grades 30 minutes

Duytsche mylen is voor een graede
10 20 30
Spaensche mylen 17½ voor een graede
10 20 30
Engelsche en Franssche mylen 20 voor een graede
10 20 30 40
60
59
58
57
56
55
Noordt bodem
Rangma
Erke
Boeghscharen
Stockholm
Mayssholm
Lusthoff
Soutsack
Noordt coppen
Nycoppen
Trosa
Ramscloof
Copersteen
Godsche sant
Salsonreyn
Carwasen
Heirhamer
Gat van Nycoppen
Zuyder coppen
Stixborg
Swartboden
Barsonde
Schelsyr
Hoogt van houten palen
Wisbuy
GOTLANDT
Wester wyck
de Bancken
Reeholm
Fluerbur
Stickholm
Sweetsche Ioffer
Noorder oorden
Grotekard
Copingwyck
Schenckenes
Calmer
Steensoe
Groen Eylant
Oelant
Zuyder oorden
Struben
Rotterdam
Elcholm
Schoonen
Landscroon
Barsebac
Elhoge
Sconer d'
Ahuys
Somerhausen
Bleek
Ichezyde
DENEMARCKEN
Bornholm
Eertsholms
Rooskol
Dantzigk
CASSUBEN.
POMEREN.
Stralesund
Iasmont
Dornbosch
de Ielle
Ruygen
Nieuwe dief

OSTLANDT

LIVLANDT.

COURLANDT.

Wyborg

Revel

Ryga

der Memel

Koningsbergen

Pascaart
Vande
OOST-ZEE.
Vertoonende in sich alle gelegentheden van de Custen vā Denemarcken, en Sweden, Pomeren, Pruyssen, Courlant, Lyfflant, en Finlant: alles op sijn rechte hoogte, distantie ende coursen gestelt.
TABVLA HYDROGRAPHICA.
Maris
BALTICI
Exhibens accuratam Littorum Daniæ, Sueciæ, Pomeraniæ, Borussiæ, Courlandiæ, Livoniæ, et Finniæ.
faciem in sua cuiusque Poli Elevatione, distantia et situ; novissime descripta.
Nieuliex uytgegeven

T'AMSTERDAM
By Anthony Iacobsen op t'Water
in de Lootsman.

27

De Custen van

DENEMARCKEN,

en Sweden, van Vlaerdingen tot S. Jan ackenes, als mede de cust
en van Pomeren van 't eylant Rugen tot Rygshooft

t Amsterdam.

By Jacob Theunisz. op 't water inde Lootsman.

BLIKIN

SCHONEN

GEN

RV

Ahus

Christianen
stadt

Sonnerhaven

Landscrona

Malmoen

Hamuen

Lappenhaven

Ertholm

Born
holm

Stamor
Hull

Brouwers Rif

Meun

Vlissingen

Dreiland

Makker

Barkes

Bergen

Stralsund

Gripswalde

Slot

Hafft

Lijsmont

Calmer

Gotland

Reefcol

C A S S U B E N

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

The first Part of the New

Lightning Sea Columne,

OR

SEA MIRROUR.

The fourt BOOKE of the

EASTERNE NAVIGATION,

Containing

The Description of the whole EAST SEA.

The first Demonstration,

Where in are Described

The Sea-Coastes of Falsterborn to Schenckenes, and from the Island Rugen to Ryghshead.

HOW men shall sayle about the riffe of Falsterborn hath been here before rehearsed. The Coast from Falsterborn eastwards lyeth most east & by north. First from Fasterborn to Elburgh are 3 leagues. If you will anchor before Elburgh, then bringh the Cloyster & the Churchwithin a fathom or a fathom & a half near one to the other, and sayle so right in unto the Town, you may anchor by it in 4, 3 or 2 fathom and a half.

From Elburgh to Uytstede are 7 or 8 leagues. Betwixt them both about 3 leagues to the eastwards of Elburgh, & 5 leagues to the westward of Uytstee is a poynt, off from which lyeth a shoale, come no nearer it then 8 or 9 fathom. Uytstee lyeth in a bight, and hath a high sharp steeple. If you be bound thither, then bring the steeple north from you, and then sayle in right with it towards the strand; there standeth a red tiled house to the eastwards of the bridge, bring that house and the end, of the bridge one in the other, and sayle in so, & runne to the westwardes of the bridge, anchor there in 3 fathom, or 2 foot lesse, there is cleane sand-ground. When you come from the west, and are past that foresaid shoale then you may boldly runne alongst by the shoare in 3 fathom and an half, without feare.

Three leagues to the eastwards of Uytste lyet a hig point called Goessebeer, from thence to Sandhammer is a league. From the poynt of Goessebeer runneth of a great shoale farre to Seawards, and lyeth alongst the Coast, unto neare Sandhammer, you may sound it in 6, 8 and 10 fathom, as you will. When you run over it in 10 fathom, then lyeth the north-end of Bruntholm about east and by south from you and the poynt of Sandhammer north. Under the Sandhammer is good anchoring for a west, w. s. w, w. n. w. and n. w. winde, in 5 or 6 fathom. When you come out of the n. e. you may run along by this coast with a n. w. winde, in 7, 8, 9 or 12 fathom, untill past Goesbeer, for to avoyd Bruntholm.

The poynt of Goesbeer & the north-end of Bruntholm ye n. w. & by w. and s. e. & by east about 5 leagues asunder, but Uytstee and the foresayd north-end of Bruntholm lyeth west-northwest and east southeast nine leagues asunder.

For to sayle from Falsterborne about to the northwards of Bruntholme you must go on east, so long untill that you have the length of Uytstee, then forth east and by north, and then you shall sayle yet neer enoug to the poynt & shoale of Goesbeer, come no nearer it then 7 or 8 fatum. But to sayle from Falsterborn to the southwards of Brontholm the course is east and south somewhat southerly 22 or 23 leagues, & alongst the south-side of Brontholme east southeast.

The Island Brontholm is clean round about, except on the southeast-poynt, there runneth of a foule riffe, called Brewers-rif, which men must avoyd. On the northeast-side you may runne alongst by it upon your lead, without doing a misse, in 22 or 23 fathom, & alongst the southwest-side in 8 or 9 fathom. Brontholm.

Men may anchor round about Brontholm, at divers places, as before Rottum, and to the northwards, before the Castle, thwart of Sandwick, Suaux and Nex. Roade under Brontholm.

Before the Village, betwixt Rottum, & the castle that standeth upon the n. w. poynt, is good anchoring for an e. n. e. winde, in 13, 14 & 15 fathom, but not verie cleane ground. Rottum.

Thwart of the Castle it is good lying for an east northeast, east & east southeast winde in 18 & 20, and also 14 & 15 fathom sand-ground, but nearer the shoare the ground is not verie cleane, the nearer to the shoare te fouler ground.

Under the northwest-poynt before Sandwick there is good anchoringh for south west-windes, and you may come neare unto that poynt. From the northwest-poynt to the other poynt the shoare lyeth east southeast and w. north w. Sandwick.

On the east-side is good anchoring before Suaux & Nex: but before Nex it is not verye clean. By Nex runneth of a little riffe from the shoare, which is steepe on both-sides: but if you come no nearer it then in 10 fathom, you can take no hurt of it: to the northwardes of Nex lyeth also a great Rock. He that will anchor before Nex, let him anchor so that the flat steeple which standet above Nex, doe stand betwixt the west and west and by south from him, and that the north-poynt be n. & by w. & the south-point be s. s. w. from him, there it is 22 fathom deep, and cleane sand-ground. At many other places it is otherwise and rough ground, with southwest and west-winds you have there a weather shoare. Nex.

The Eartholmes lye from the north-end of Bruntholm east and by n. & w. & by s. 3 leagues asunder, and from the southeast-end, s. & n. 5 leagues. In the Eertholms is a little Haven, but by reason that is not used it is unknowne.

Betwixt the north-poynt of Bruntholm and the poynt of Sand-hammer, but neareſt to Bruntholm lyeth a shoale of 6 fathom, where sometimes Fishermen doe lye to Fish, it is not verie great, but hard stonie ground. Shole by Brontholm.

From Sandhammer the coast lyeth n. n. e. and north and by

by east two leagues to Somer-haven, this is a round bay, within it is very good anchor ground. From thence the coast lyeth about north six leagues unto Ahuys. From the north poynt of Bruntholm to Ahuys, the course is north somewhat westerly about 13 or 14 leagues. But to Hanno, northand by east 13 or 14 leagues.

Ahuys leyth upon a river, where sometimes is before the towne 10 or 11, and sometimes also no more then 4 or 5 foot water, accordingh as the water commeth of out of the land, upon it is a great fishingh, where in the sommer time are great store of good Els taken. To the eastwardes of the mouth of the River runneth of a stony flat from the shoare, and to the southwards of the river a foule stony riffe, right of from the shoare alonghst by the foresayd flat, so that there lyeth in a channell betwixt the foresayd flat, and riffes which is called the Easter-gat.

Through this foresayd riffe lyeth in a channell untill into the Eastergat, on against the flatte, which is called the Southergat. If you will sayl into this southergat, comming from the southwards, then runne to the west shoare to the southwards of Ahuys, untill you come in 5 or 6 fathom, and then you shall see upon the north shoate, north and by west somewhat more westerly from you, a cape or beacon standing a little from the strand within the land, of fashion like a mill without wings: Bringh this beacon to the west-side of the high hill, which lyeth somewhat further into the Land, to witt, even in the going of the highest of the hill, keepe these markes so standingh, and sayl in right with them untill that Ahuys commeth over that tree, which standeth there at the north end of the wood, or that the white Countrie-church come to the nordwards of the little houses of Ahuys, then goe on n. w. or bring that foresayd white Countrie-church in a little valley, a little to the northwards of an old ruined castle, where of there standeth yet some of the walls upon, the north-side of the river, and sayl so on, untill that Ahuys come to stand in the middest of the river, anchor there in 2 fathom and an halfe, or 3 fathom, there is the roade, there can goe no sea. In this southergat it is 2 fathom, 2 fathom and an half, and sometimes also a least 3 fathom deep.

Eastergat. For to sayle into the Eastergat, comming from the southwards keepe in 6 or 7 fathom, & runne so the north shoare and then you runne alonghst without the riffe, that lyeth of by south the rivers mouth from the west shoare, untill that Ahuys. Ahuys doe stand rigt west from you, then there commeth a great tree to the wood, that standeth upon the west shoare, keepe that so standing and runne in right with it, untill that the foresayd Countrie-church come to the aforesayd old peece of wall, of the old ruinous castle, and then right in, as ha h beene beforesayd. Or runne in by the first markes, untill within a shot of a cast peece neer to the west shoare, and then edge up to the north shoare, untill that Ahuys come in the middest of the river, and anchor there, as hath been sayd.

Hanno is a hig round Island, which men may sayle round about, under it is good road for south and s. e. windes.

Behind Hanno runneth up a little River to Selsbroug, but serveth onely for small ships or Crayers, which go not depe.

From Ahuys to the Rockes the course is east & south 12 or 13 leagues betwixt them both lye divers little townes, as Fleholme & Rottenbuy, where men may anchor before, in 6 7 and 8 fathom good anchor ground. And other havens be more, but little or not hing knowne by Hollanders. Thwart of Rottenbuye lyeth a litle Rocke somewhat off from the land, called Malqueren, under which men may also ride.

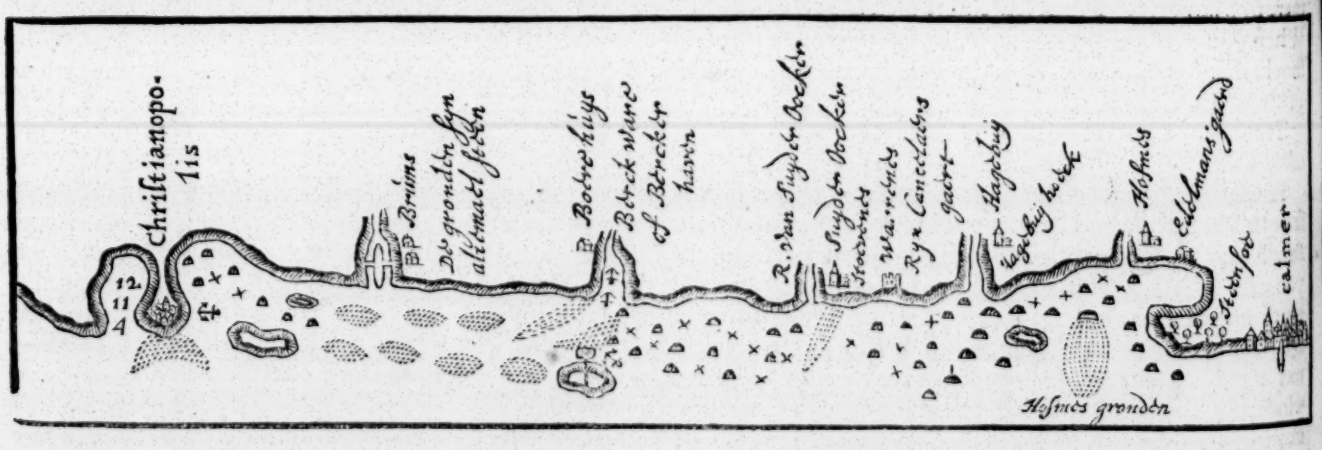
From the north poynt of Bruntholm to the Rocks the course is northeast somewhat northerly 16 leagues, but from the poynt of Sandhammer e. n. e. 16 leagues. If you runne alongst close by north poynt of Bruntholm, you shall runne with a north waye, alongh even without the Rocks: But if you runne alonghst close by the poynt of Sandhammer, and will sayle from thence to the Rockes, you shall with north east & by east waye fall with the Land even within them, or to the westwardes of them.

The Rocks are some little rocks together, which men may sayle round about, but can have no Roade under them, they lye 3 or 4 leagues distant from the maine land, and are smaller then the Eartholms.

A league or two to the northwards of them lyeth the Vrouwen of Grene Island, by some called the Roug Island and also the Outlyers: It is not so brooken in it selfe as the Rocks, & also much greate, of to seawards from it, lye some rocks, to the westwards of it, it is all full of rocks, some above and some under water alongst even fast to the Land, you may sayle about within the Greene Island betwixt it and the roockes, but no man can doe it, but he must be verie well acquainted there, & then also not without great daunger. To the south-wards of it you may also finde Roade at some places, but you must be verie wel acquainted, and also not without daunger, by reason of the multitude of suncken rocks and sharp grounds. The east-side of the Outluyers lye from the rocks n. e, & by north. The soud end of Oeland is a sharpe poynt, & lyeth from the roks east & west about ten leagues distant. Thwart of it, betwixt the maine land and the a foresayd south poynt of Oeland, it is about 4 leagues broad, betwixt them both goeth in the Calmer-sound.

For to sayle up into the Calmer-sound, then goe on from the rockes or from the Outlyers n. e. & by east & then you runne in betwixt Oeland & the maine land upon 14 fathom and sayle then n. n. east betwixt them both, a middest the channell, both the shoares are verie foule: but if you come not nearer them then in 7 fatum you can take no hurt there.

CHRISTIANOPOLIS and CALMER.



FRom the Rocks to Calmer are 16 leagues: About half wayes betwixt them, n. w. from Southerorden the soutermost poynt of Oeland lyeth the towne of Christianopell, lately built there upon a little Island by the Christi- Kinghs Majestie of Denmarke, and so called after his name. Thwart of it anopel. was wont to lye upon the maine land a little towne called Overschare, now Over- it is one with Christianopel, thwart of it lyeth a ledge of rockes about schare. a great English mile of from the shoare south east into the sea, come no nearer it then in 10 fathom.

At Christianopel is a haven on the east-side, from is lyeth of a riffe towards the east northeast into sea; therefore he that will sayle in there must come in from the northwards for to avoyde this riffe.

To the northwardes of Christianopel towardes Calmer, it is on both sides (as well on the side of the maine land, as on the side of Oeland) all full of rocks and foule grounds, but you may sound both the shoares: in the middest betwixt both in the farewaye, it is 10 and 12 fathom deep, all soft clave ground, to the southwards of Christianopel it is deeper, but to the northwards of Calmer it is by littler shoaler.

Two leagues to the northwards of Christianopell lyeth Berckerhaven, Berck haven. there men doe lade oaken beams, there within it is good lying, but verie bad for to come in or out, because of the multitude of suncken rocks, and other foule grounds, which lye before it, about a half league off from the shoare to seawards.

About

Holmes ground. About a league to the northwards of Berckerhaven lyeth Hoſmes ground, which is a very bad foule ground, lyingh ſomewat farther off from the ſhoare to ſea-wards, then the other rocks which lye alonghſt the ſhoare, there of you muſt take heede.

Steenſoe. About a league to the ſouthwards of Calmer, and 2 leagues to the northwards of Holmes ground, lyeth a poynt called Steenſoe, which is a ſomewhat high rough and very foule poynt, a halfe league longh, lyingh within, a halfe league neare to the towne, to the weſtwards of it runneth in a great bight, where is good lyingh alſo for manie ſhipps, but you cannot come in there, becauſe of the maine foule grounds & dangers, except it be with a very Skilfull Pilot: upon the weſt-ſide, over againſt the poynt ſtandeth a white houſe. The Kingh of Denmarcks fleet of ſhips laye there, in the time of the laſt ſiege of Calmer.

Caſtle of Calmer. When you come ſo farre in, that you leſe the ſouth end of Oeland out of your ſight, then you get the Caſtle of Calmer in ſight, ſayle towards it but ſhunne the ſhoares, as hath been ſayle here before. The Caſtle hath 4 great towers, when the 2 eaſter moſt of the 4 come one in the other, then is the Caſtle about northweſt from you then you come by the Grimſchaer, this is a rock eaſy to be knowne, upon't ſtandeth a maſt, with a Barrel upon the toppe of it, which lyeth much nearer the weſt ſhoare then Oeland, when you get it in ſight, then ſayle towards it. Thwart of the Grimſchaer or Tonholm lyeth a ſuncken rock, about a cables length off from it, and a little more to the eaſtwards, upon it is no more then five foot water.

The farewaye is through, betwixt this ſuncken rock and the Grimſchaer about northeaſt and by north ſayle cloſe alongſt by the Grimſchaer, leaving it on the larboard ſide, and then the foreſaid ſuncken rock, remaineth on the ſtarboard ſide of you.

Being a little paſt the foreſayd ſuncken rock, and Grimſchaer, you come then on againſt the weſt-end of a longh ſmall rock, which lyeth farr to the eaſtwards, towards Oeland, and lyeth almoſt even with the water, at ſome places a little above water, and at ſome places the Sea runneth alonghſt over it, edge then a little up to the northwards, and runne about by the poynt of that rock; beingh paſt that, you ſhall meet on the larboard ſide a low rock, from the which there ſhooteth of a little tayle to the northwards, upon it ſtandeth a little beacon, ſaile alonghſt by it, and beingh a little paſt it, then ſhall the Town lye weſt-ſouthweſt from you, let your anchor fall there in 5 or 6 fathom, there is the right road. If you come to anchor ſomewhat northerly in the roade, you muſt be carefull to take heed of a ſuncken rock, which lyeth not more then 11 or 12 foot under water.

Sunken rock. The Marcks of this ſuncken rock are theſe: when the mills upon the Mulholm are one in the other, with the mill which ſtandeth on the northſide without the towne, then you are thwart of the foreſayd ſuncken rock; On both ſides of it, as well to the northwards as the ſouthwards of it, it is deep enough. It is good lyingh there, allmoſt with al windes, but a north and by eaſt winde is the worſt, which blowet there open in. With ſhipps that go not deeper then 6 or 7 foote, men may come to lye at the bridge before the towne.

You may alſo ſaile to the weſtwards of the Grimſchaer: that is, through betwixt the Grimſchaer and the land, with ſhipps that go not deep, but he that ſhall doe it, muſt be verie well acquainted there, for there it is all full of Rocks; ſome above and ſome under water.

Southerorden riff. From the ſouth-end of Oeland, called Southerorden, lyeth off a great dangerous riffe a league and an half into ſea, there it is 7 and 8 fathom deep, when the Chappell upon Southerorden is north-weſt, a great league from you, there it is 10 and 11 fathom deepe; you may ſound about this riffe in 8 or 9 fathom, but it is not good to come nearer it, when you can doe otherwiſe, and can paſſe it.

Skalloe. A halfe league to the northwards of the Towne Calmer, to wit, a little to the northwards of the road, lyeth an Iſland, called Skalloe, which you muſt leave on the ſtarboard ſide, when you are bound from Calmer to the northwards: It is indifferent cleane upon the weſt-ſide, but from the Sweeds ſide there over againſt it runneth aff a ſtone riff, almoſt unto the Iſland. Upon this riffe ſtandeth commonly a ſtone beacon: it is dangerous to ſayle throug there, or over that ſhoale, for one that is not there very well aquainted: It is alſo Piloth water.

Skegneſſe. Four leagues to the northwards of the Calmer, on the Sweedsſide, lyeth an out poynt, called Schenknes, or Skegneſſe, thwart of it lyeth a ſmall Iſland, called the Baker, betwixt this poynt and Scallo it is very uneven of depths.

The eaſts coaſt of Oeland is a cleane coaſt, and lyeth north-northeaſt, and ſouth-ſouthweſt.

Of the Iſland Rugen.

To the weſtwards of the Iſland Rugen men doe ſayle up into the Jelle unto Straelſound. For to ſayl from Straelſound out alongſt the Jelle, goe on north and north & by weſt there lyeth a middle ground, ſometimes there ſtandeth a beacon upon it, and ſometimes not leave that on the larboard ſide, being paſt that, ſayle to the poynt where the wood ſtandeth upon ſo that the Town come behind the wood, you ſhall then ſee a verie high tree, bring that over the flatteſt ſteeple, and keep it ſo a while ſtanding, going on ſtill north and north and by weſt, unto the beacon the Jelle. When as you luffe up about by it weſt, then look out for two trees, which ſtand upon the eaſt ſhoare, ſomewat with within the land, bringh them a ſhips length without the higheſt tree, which ſtandeth upon the ſhoare, and luffe about the beacon, towards the buye. In the mouth of the deepe lye three buyes, which in ſayling out you muſt leave al on the larboard ſide, but in ſayling in al on the ſtarboard ſide. It is not deeper in the mouth of the deepe then 5 and 7 foot, and alſo without, it is farre of ſhoale water.

The Iſland Rugen hath four poynts that lye out, under which men may ride at divers places, as Doornboſh, Whitmond, Jaſmond and the Peert.

Dornboſh. The poynt of Dornboſh lyeth from the Jelle north diſtant 2 leagues, it is hig land with a ſteepe poynt, men may ride under it for n. e. e. and ſ. e. windes. If you will anchor there, then anchor in 3 or 4 fathom, ſo that the ſteepe poynt ſtand n. n. e. from you, or that the Church ſtand over the poynt, or anchor where about that it ſhall pleaſe you, or ſhall beſt convenient, it is there al over ſhallow water and clean ſand ground.

From Dornboſchap to Brontholm, the courſe is e. n. e. 17 or 18 leagues, but Dornboſh and Faſterbornes Riffe lye n. n. w. and ſ. ſ. e. 14 leagues a ſunder.

From Dornboſh to Withmont, the courſe is n. e. & by eaſt 4 leagues. Betwixt them both goeth in a greate Bay, where you may run in alongſt by Whitmont, and have road there in 5 or 6 fatum, for ſouthweſt ſouth & alſo for an eaſtwinde.

Roade under Whitmont. If you wil ſeeke roade under whitmont for weſterly windes, and runne about by the poynt comming from the weſtwards, then come not nearer the poynt, then 7 or 8 fathom there ſhooteth of an uneven ſhoale, which you muſt avoid, being come about the poynt, anchor there in 12, 13 or 14 fathom, that is about a league from the ſhoare, nearer to the ſhoare in 7, 8 or 10 fathom, the ground is not cleane, in 12 fathom you have groſſe ſand, in 13 or 14 fathom ſoft ground, ſo that with harde winds you ſhould need to ſhoe your anchor, you lye there alſo landlock for a w. & ſ. winde.

Roade under Jaſmond. Jaſmond lyeth from Witmond e. ſ. e. diſtant 3 leagues. If you will anchor under Jaſmond, for a w. or w. n. weſt wind, then ſaile ſo far about the poynt, that it come be n. n. weſt, or ſomewhat more northerly from you, when you come about the poynt, you ſhall ſee in the ſ. w. or ſomewhat more weſterly from you a little thick wood of trees, upon a plain hill, and on each ſide of that little wood, a little ſharpe ſteeple, and alſo a great tree, like as if it were a mill without wings, when that tree commeth to be ſ. w. and by weſt from you, anchor there in 9 or 10 fathom, there is indifferent ground, according as the ground is there, by the poynt of the land, it is about 13 fathom deep.

Or bring the north poynt n. w. & the other poynt ſ. w. & by ſouth from yon, & anchor there in 10 or 11 fatum, there it is good ſoft ground, but it laſteth not longh, ſo ſoone as yon finde the ſoft ground you muſt let fall your anchor, for the ground is there at maines places not cleane, or you muſt ſayle farre about both the poynts, there you lye landlokt for a n. w. & n. winde, in 10, 11 or 12 fathom, good ſoft ground.

The Peert. The Peert, which men doe alſo call the great Buk upon Jaſmond is a tuffe of trees or two, and is a poynt that lyeth out with two poynts, where is betwixt them both a fayre Sand-bay, where in is good lying in foure or five fathom clean ground.

Jaſmond and the Peert lye ſouth ſoutheaſt, and north-northweſt, diſtant four or five leagues.

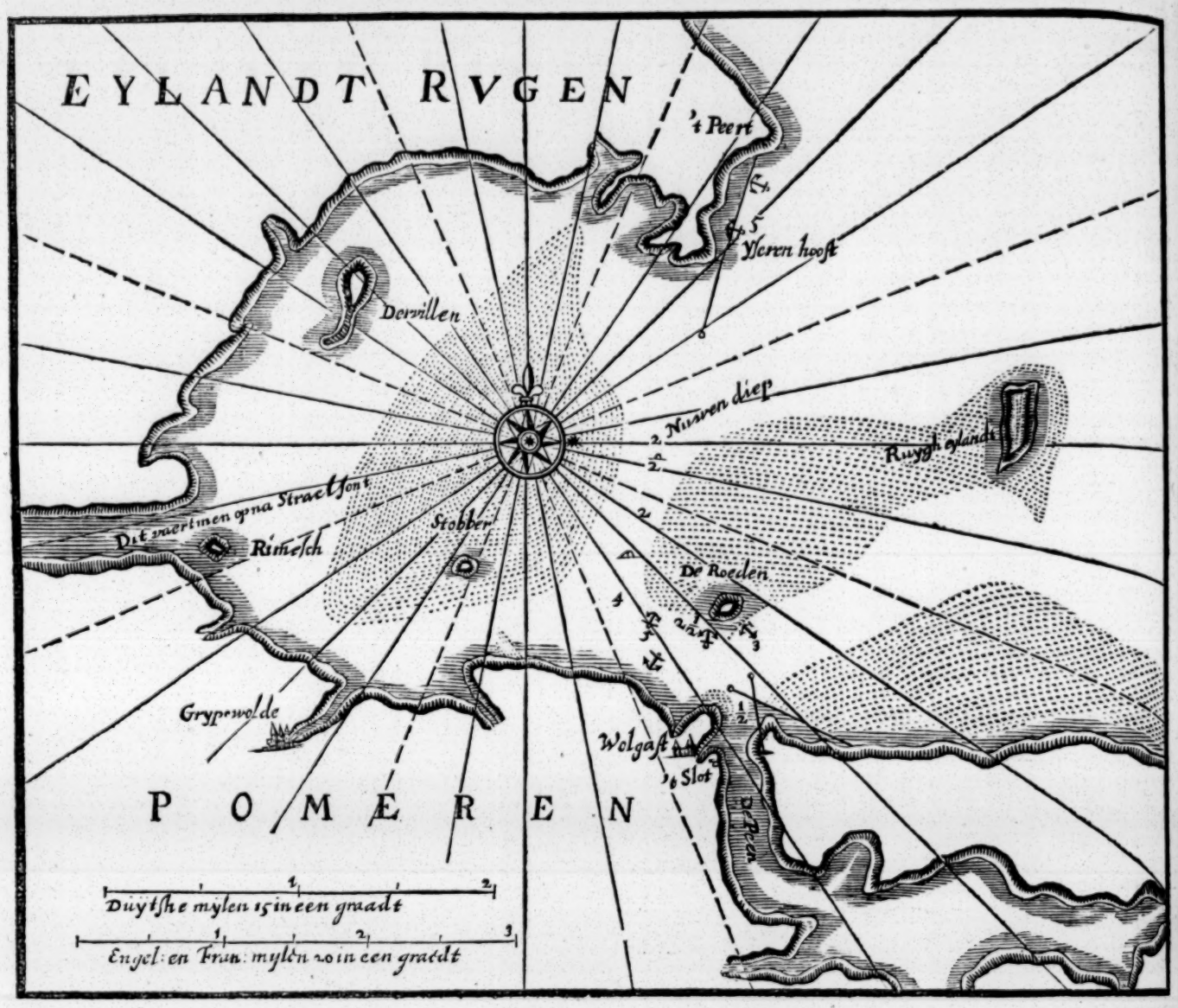
To the ſouthwards of the Peert goeth in that Newdeep, where men doe ſayle through to Statyn.

For to ſail into the new Deepe. About a league ſouth, ſomewhat weſterly from the Peert lyeth a poynt, called the Ironhead, there lyeth off a little riffe, therefore you muſt runne alongſt ſomewhat without that poynt, and being a little paſt that poynt, you can ſee the outermoſt buy of the New-deep, where in lye two buyes in the middeſt of the deepe, ſo that you may ſayle alongſt on both ſides of the buyes, but with ſhipps of great draughts, you muſt run cloſe alongh to the eaſtwards of the buyes, there is the very deepeſt of the channell. By the outermoſt buye it is at ſhoaleſt, there is the barre, commonly there is eleven foot water, or a little more then eleven foot and a half, and ſometimes alſo well 12 foot, but in the middeſt of the Mouth of the deep it is commonly ſtill 12 foot, and ſometimes more.

Upon the Peert lye tree high hommoks, the weſtermoſt of them is the greate ſtone, greate round hommock, when you keep that right without the Ironhead, and then run on ſouth-ſouthweſt then you cannot ſayle amiſſe, althoug there where no buyes in the mouth of the Deep.

The

The NEW-DEEPE.



WHen you come over the Barre, you ſhall finde againe 4 or 5 fathom depth, benig à little over it, you muſt goon ſoutheaſt unto the entrance of the Peen, with that courſe you leave the Iſland of the Roeden lyingh at leaſt two cables lengths on the larboard ſide. It is there all over good anchoring. Right over againſt Grypswald lyeth a little Iſland called Stobber, round about which you may allmoſt ſayle ſome thingh more eaſterly the Grypswald lyeth a little riffe thwart from the ſhoare.

The Roeden

If you will ſayle into the Peen you ſhall eſpye (ſaylingh thus rigt out a head at the eaſt-ſide of the Peen) two points, keep the eaſtermoſt a hand-ſpikes length without the weſtermoſt (for to avoyd a ſtonye ſhoale, which runneth of from the weſt-poynt of the Peen) untill that you come before the Peen. Upon the eaſt-ſhoare ſtand two beacons, bringh them one in the other, and run ſo into the Peen, which lyeth in firſt ſouthweſt but in the commingh in, there is no more then ſix foot, or ſix foot and an halt water.

Roade under the Roeden

If you will anchor under the Iſland the Roeden, you muſt be mindfull of a little riffe that lyeth off from the Roeden to the ſouthwards, towards the mayne land, anchor there, either to the weſtwards or to the eaſtwards of it, according as the wind ſhall bee, in 3 fathom, or two fathom and a halfe, ſo ſhoale or deepe, as you pleaſe, there is the common roade for the ſhips.

Rough Iſland.

The Roug Iſland lyeth from the Roeden northeaſt and by eaſt diſtant about two great leagues.

About eaſt northeaſt from the Roeden lyeth alſo a channell into the Sea, a little to the ſouthwards of Roug Iſland, that is good for to runne out with weſterly-winds, when you cannot come out at the New-deepe, and alſo for thoſe that are bound to Danske, or to the eaſtwards. From the Roug Iſland lyeth off a little riffe to the ſouthwards, which you muſt avoyd, and runne through betwixt that and the ſhoale which runneth from thwart off it is the barre or ſhoaleſt of this channel not leſſe then 11 or 12 foot water, that is a ſhort out let, being over you ſhall geth preſently deeper water. This channell is Pilots-water. Upon the Iſland the Roeden dwell Pilots, which doe bringh out ſhippes. The Coaſt of Pomeren lyeth from the New-deepe to Colbergen eaſt and weſt about 16 or 17 leagues.

Betwixt them both lye yet two channells, the Swinne, and the channell of Camin. The Swin lyeth ſeven leagues eaſtwards from the New-deepe, which runneth trough a little River into the Haff or broade water, right over againſt the River of Stetyn. Camin lyeth five leagues to the eaſtwards of the Swin, upon the eaſt-end of the Haff or broad water of Stetyn: that channell goeth through alſe with a River into the Haff.

Five leagues without the land, when Jaſmond is weſt northweſt or thereabout, the Peert weſt ſouthweſt & Roug Iſland ſouth from you, there lyeth a banck of 7 fathom, upon one place ſomewhat leſſe, and upon another ſomewhat more, betwixt it and the land towards Jaſmond it is again 13, 14 and 15 fathom deep, but to the eaſtwards of the New-deepe, alonghſt by the Coaſt of Pomeren, it is all ſhoale-water, 4, 6 and 7 fathom ſo farre into the Sea, that when you can but even the land of the Swin, there it is not deeper then 7 or 8 fathom, without ſight of the land it is 12 and 13 fathom deep.

The Haven of Colbergen, you muſt ſayle into betwixt two heads, untill you come before the Towne. Within in the river, right over againſt the town, lyeth a Well or Brook which can give all the countred thereabout Salt, of water which they ſeeth, and yet the water of the river is freſh as Milk, for it is a little water that commeth out of the land.

The

The Coaſt of Pomerland lyeth from Colbergen to Graſhead northeaſt and by eaſt and ſouthweſt & by weſt about 13 leagues, betwixt them both lye two havens more, to witt, Coſlyn and Ruwolde.

Coſlijn. Ruwolde. The haven of Coſlyn lyeth from Colbergen e.n.e. 3 leagues diſtant. And from Coſlyn to Ruwold, the courſe is n. e. and by eaſt 5 leagues. Into the haven of Ruwold, or the little river, called the Wiper, an indifferent ſhip may go in. It is from Ruwolde to Garſhead n. e. and by eaſt four leagues.

The land lyeth from Garſhead to the Roſehead eaſt and eaſt and by north 20 or 21 leagues, betwixt them lye the havens of Stolp, Liba and Servenis.

The Stolp. A little to the eaſtwards of Grathead lyeth the have of the Stolp, wich is a river ſo called as the towne, which runneth up to the ſame towne, onely for ſmall ſhipps, although that there doe indifferent great ſhips lade.

From Garſhead unto Reefcoll it is all a white ſtrand, and lyeth eaſt northeaſt from it four leagues. Reefcoll is a high round hill very eaſy to be known, when you come off from Liba. Brontholm. From Reefcoll to Liba it is 7 leagues.

Serne-vis. Liba lyeth upon a great river, called the Oſſe. From Liba to Sernevis are five leagues, betwixt them lye the thre Woolſacks; which are three black ruffes of trees, where by this land very eaſy to be knowne, a little to the eaſtwards of theſe three little Hommoks lyeth a long hill which doth ſhew it ſelfe (when you come out of the weſt) on the weſt-end divided into 3 or 4 little hommocks. Seven or eight leagues to the eaſtwards of the Woolſacks followeth the high land of Roſe-head, which is very ſteep upon the water-ſide. Betwixt theſe Roſe-head and Reefcoll, it is all white ſtrand: and moſt of the land grown with trees.

Sernevis is a little towne lying upon a little of water which with a little river runneth into the Sea, but within, it doth ſpread it ſelfe into a great river. It is from Sernevis to the Roſe-head four leagues.

You may ſound about the Roſe-head in 15 & 20 fathom, & alſo you may well anchor under the Roſe-head, there is better ground then under the Heel. All the ſtrand of Pomer-land is alonghſt the Sea ſide above all black with trees.

Of the Depths.

In the fareway to the northwards of Brontholm alonghſt to Rye, it is deepe betwixt Oeland end Brontholm 35, ſixe and thirty fathom, but coming againſt Oeland, ſo that the ſouth-end come to be northweſt, and by north, nortweſt, and northweſt and by weſt 5 or 6 leagues from you, there you ſhall finde very uneven grounds. Southeaſt 5 or 6 leagues from Southerorden, are grounds of 9, 10, 12 and 16 fathom in the nine and tenne fathom ſaft ground, that there remaineth nothingh upon the lead, but in the 14 or 15 fathom, it is groſſe redde and black ſtonie ſand ground, almoſt like lett. Nearer againe to Oeland it is againe deeper water & farther from the land it is alſo deeper, but all uneven ground, the ſouth-end of Oeland, being about n. n. w. from you 8 leagues, there it is againe ſometimes 20, 24 and alſo well 10 and 9 fathom in the ſhoaleſt deep: all ſtonie ground, that there remaineth nothingh upon the lead, but in 20 and 25 fathom groſſe redd and black ſtonie ſand. He that ſayleth with a northerly wind over theſe foreſayd ſhoales, of 10, 11 and 12 fathom, and is bound to Brontholm, leth him goe on weſt-ſouthweſt, from to ſayle clear of Brontholm, if he reckon to come againſt it by night: the Bleeckſche ſide he may boldly runne to by the lead in 17 and 18 fathom. The poynt of Sand-hammer runneth farr of flat, as hath been ſayd here before, you may runne about by it in 7 and 8 fathom.

Betwixt the Rockes and Oeland, in the fareway to Godland it is 38 and 39 fathom deepe eaſy clay ground.

When Southerorden is north-northweſt, ſomewhat northerly a league from you, there it is thirteen fathom deep.

When the little chappel upon Southerorden is weſt-northweſt from you two leagues, there it is 30 fathom deep.

When Southerorden lyeth weſt two great leagues from you, there it is 27, 28 and 29 fathom deepe.

Betwixt Faſterborne and Brontholme it is 30 and 35 fathom deep, in the fareway, but whe you beginne to come neare Faſterborne, there it is ſhoaler water of fourteene, fifteen and ſixteen fathom.

When you (commingh from the weſt) ſayle alonghſt by the ſouth-ſide of Brontholm eaſt fourtheaſt about a league without the land, and that the eaſt end of Brontholm is eaſt ſomewhat ſoutherly about two leagues from you, there it is deep 7 or 8 fathom groſſe pale ſand, that laſteth untill that the foreſayd eaſt end be eaſt and eaſt and by north about a league and a halfe from you all in one depth, but when it commeth to be eaſt northeaſt from you, it is 15 fathom deep, ſmall blackiſh ſand-ground.

Four or five leagues from Brontholme, when the eaſt end (from which Brewers riffe runnet of) is about eaſt northeaſt or northeaſt and by eaſt and the north end about north, or north and by eaſt from you, there lyeth a banck of 7, 8 or 9 fathom, and lyeth northweſt and ſoutheaſt more then a great league long, the ſouthermoſt end lyeth about ſouthweſt from the eaſt end of Brontholme. He that meeteth with this banck by night, may make ſome gueſſing thereby, for to direct his courſe there after, whether he be bound eaſtwarder Reefcol, or towards Faſterborne.

About two leagues eaſt ſoutheaſt from the a foreſayd eaſt end of Brontholme (to witt the lowe ſand poynt) where Brewers-riffe lyeth of, there it is 24 and 25 fathom deep, ſtonie ground.

About four leagues eaſt, ſomewhat northerly, or eaſt and by north from Meun, lyeth a banck of 11 and 12 fathom, which laſteth from thence with a northweſt and by weſt courſe, untill that Meun come to be weſt-ſouthweſt, or ſouthweſt and weſt from you, then it is again eighteen, nineteen and twenty fathom deep, ſoft ground.

Faſterborne ſhall then be north-northweſt and Steden weſt-northweſt from you, going on with that ſame northweſt and by weſt courſe, you ſhall then get by little and little ſhoaler-water, to witt, ſixteen and fifteen fathom, and cloſe by Steden fourteene, thirteene, and twelve fathom. He that commeth from Withmondt or Jaſmondt towards the Sound, and runneth alonghſt four leagues without Meun, runneth alonghſt over this foreſayd banck, he that findeth himſelfe by night upon it, hath a good marck for to make his reckoningh there after.

Betwixt Brontholm & the coaſt Pomerland, in farreway, when you can ſee Brontholm it is 26 fathom deep, but ſo farre to the ſouthwards that you can ſee the coaſt of Pomerland, there it is 7 & 8 fathom deep, but without ſight of the land 12 & 13 fathom deep. Alongſt all the coaſt of Pomerland betwixt the New deepe & Roſe head, it is alongſt by the coaſt 22 and 20 and alſo well 25 fathom deep.

Betwixt Colbergen & Garſhead it is all flat even ſtrand & ground, without any bancks. In the farreway betwixt Bruntholm & Reefcoll, it is 27 & 28 fathom deep, but farre to the northwards of it is all leaſt 35 & 38 fathom deep.

Northweſt from Reefcoll 4 or 5 leagues from the land lyeth a banck of 9, 10 & 11 fathom when you come from Bruntholm, & Reefcol commeth to bee ſoutheaſt and by eaſt from you, then you come againſt this banck, and endeth when Reefcol is ſouth and by eaſt from you.

From this foreſayd banck towards Bruntholm, it is 25, 30 and 36 fathom deep, ſoft clay ground, but towards Reefcoll it is ſhoaler.

If you caſt the lead often, ſayling alongſt that coaſt, you ſhall finde more banckes.

You may boldly ſayle alongſt this coaſt by night, or darke weather in 8, 10 or 12 fathom off from Reefcol untill about the Roſehead. Thwart of the Roſe-head it is farre flat, and round as riffe ground. When you come paſt or about Rosehead it is very deep.

When the Roſe-head is ſ. ſ. w. from you about a league, there it ts 30 fat. deepe, but very uneven & full of bancks, & the ground white groſſe ſand.
Roſehead being ſ. e. from you, it is 28 fathom deepe, with red ſtone ground, all moſt like as if it were riffe ſand.
Roſehead being weſt from you, there it is 16 fat. deep, & white ſand grond.

Courſes and Diſtances.

From the poynt of Sandthammer to Somerhaven, the courſe is northnorth eaſt, and north and by eaſt	2 leagues
From Somerhaven to Ahuys north	6 leagues
From Ahuys to Hanno eaſt	6 leagues
Erom Hanno to the Rocks, the courſe is e. & by ſouth	8 leagues
From the Rocks to the Outlyers north and by eaſt	1 league
From the Outlyers to Chriſtianopell northeaſt and by eaſt	7 leagues
From the Rockes to Calmer firſt n. e. & by e. then n. n. e.	16 leagues
From Calmer to Scheggenes north northeaſt	4 leagues
From the Rocks to Southerorden the ſ. end of Oeland eaſt	9 or 10 leagues
From Sand-hamer to the Rocks e. n. e. ſomewhat eaſterly	16 or 17 leagues
From the north poynt of Brontholm to Ahuys north & by weſt ſomewhat northerly	14 leagues
From the north-poynt of Brontholm to Hanno north & by eaſt	14 leag.
From the north-poynt of Brontholm to the Rock, n e northerly	16 leagues
From the north-poynt of Brontholm to Southerorden n. e. and by eaſt a little eaſterly	23 or 24 leagues
From the ſouth-end or eaſt-end of Brontholm to the Rocks n. n. e.	19 leag.
From the eaſt-end of Brontholm to Southerorden northeaſt	24 leagues
From Southerorden to Reefcoll ſouth and by eaſt	22 leagues
From Southerorden to Roſehead ſoutheaſt	28 leagues
From Southerorden to Quinsbrougſt-deepe ſ. e. and by eaſt	48 leagues
From Southerorden to Der Memell eaſt and ſouth	48 leagues
From Southerorden to Sevenbergen eaſt	48 leagues
From Southerorden to Derwinda eaſt and by north and e. n. e.	60 leagues
From Southerorden to the ſ. end of Gotland e. n. e. & n. & by e.	23 or 24 l.
From Southerorden to the great Karell n. e. ſomewhat northerly	27 leag.
From Faſterborne to Elburgh eaſt and north and eaſt	3 leagues
From Elburgh to Uytſtee, eaſt	10 leagues
From Uytſtee to Goesbeer to Sandhamer northeaſt	3 leagues
From Goesbeer to Sandhamer northeaſt	3 leagues
From Faſterborn, or from the riffe to Brontholm e. and e. and by ſ.	20 leag.
From Faſterborn to the northwards of Brontholm eaſt & by ſouth	20 lea.
But to the ſouthwards of Brontholm, e & by ſ. ſomewhat ſoutherly	23 lea.
From Uytſtee to the north-poynt of Brontholm eaſt ſoutheaſt	9 leagues
From Meun to Brontholm eaſt and eaſt and by north	21 leagues
From Steden to the north-ends of Brontholm eaſt	24 leagues
From Faſterborn to Withmond ſoutheaſt	15 or 16 leagues
From Faſterborn to Dornboſh ſouth ſoutheaſt	14 or 15 leagues
From Meun to Withmont ſoutheaſt and by ſouth	11 or 12 leagues
From Meun to Dornboſh ſoutheaſt	9 leagues
From the Jell to the poynt of Dornboſh north	2 leagues
From Dornboſh to Withmont, the courſe is n. e. and by eaſt	4 leagues
From Whitmont to Jaſmont eaſt ſoutheaſt	3 leagues
From Jaſmont to the Peert ſouth ſoutheaſt	4 or 5 leagues
From Dornboſh to the north-end of Brontholme n. e. & by eaſt	19 lea.
From Whitmont to the north end of Brontholm n. e. and by eaſt	15 leag.
To the ſouth-end eaſt and by north and eaſt northeaſt	15 leagues
From Jaſmond to the ſouth-end of Brontholm n. e. and by eaſt	13 leagues

From the Peert to the ſouth-end of Brontholm n. n. e.	14 leagues
From Jaſmont to Comyn e. ſ. e. ſomewhat ſoutherly	7 leagues
From the New-deepe to Colbergen, e. and e. and by ſ.	16 or 17 leagues
From Comyn to Colbergen e. n. e.	6 leagues
From Colbergen to Coſſijn e. n. e.	3 leagues
From Coſſijn to Ruwolde n. e. and by eaſt	5 leagues
From Ruwolde to Garſhead n. e. and by eaſt	4 leagues
From Garſhead to Reefcoll e. n. e.	4 leagues
From Reefcoll to Lyba eaſt and by north	7 leagues
From Lyba to Sernevis eaſt and by north	5 leagues
From Sernevis to the Roſe head, the courſe is e. & e. & by north	4 leagues
From Kolbergen to Garſhead n. e. and by eaſt	12 leagues
From Reefcoll to Roſe-head, the courſe is e. & e. & by north	17 leagues
From the ſoud-end of Brontholm to the Swin, ſ. ſomewhat weſterly	15 lea.
From the ſoud-end of Brunt-holm to Colbergen l. e. & by ſ.	16 leagues
From the ſoud-end of Brontholm to Reefcol, e. and by ſ.	64 leagues
From the ſoud-end of Brontholm to the Eartholms, nord	4 great leagues
From the north-end of Brontholm, or from the Eartholms to Roſe-head, the courſe is eaſt, and eaſt and by ſouth	40 leagues

How moſt off all the chifeſt points and places of the Eaſt-Sea do lye diſtant from Brontholm.

From Brontholm to Der Memel eaſt	64 or 65 leagues
From Brontholm to Der Lyba e. & by n. ſomewhat northerly	67 or 68 lea.
From Brontholm to Derwinda e. n. e.	80 leagues
From Brontholm to Houbroug, or the ſoutend of Gotland n. e. & by e.	50 le.
From the north-end of Brontholm to Southerorden, the ſoud-end of Oeland n. e. & by eaſt ſomewhat eaſterly	24 leagues
From the ſoud-end of Brontholm to Southerorden n. e. ſomewhat northerly	24 leagues
From the north-poynt of Brontholm to the Rocks or out Rocks, n. e. ſomewhat northerly	16 leagues
From the north-point of Brontholm to Hanno, n. & by e.	13 or 14 leagues
From the north-end of Brontholm to Sand-hamer n. w.	6 or 7 leagues
From the n. end of Brontholm to the point of Goesbee n. w. & by w.	5 lea.
From the north-point of Brontholm to Uytſtede w. n. w.	9 leagues

How theſe Lands doe ſhew them ſelves at Sea.



Brontholm ſheweth it ſelfe thus, when you come from the weſt.



In this forme ariſeth the Eartholms, being north from you.



The Eartholms, being n. n. e. from you, ſhew themſelves thus.



The Eartholms, being eaſt from you, ſhew themſelves thus.



The ſouth end of Oeland ſheweth thus when it is thwart off from you.



Thus ſheweth Whitmont, when you ſayle alongſt by it, being 3 leagues of from it.



Thus ſheweth Jaſmond, when you ſayle alongſt by it, being 3 leagues from the land.

Whitmont.

Here under is a great bay, a league long.

Dorneboſch.



Thus ſhew them ſelves Whitmont and Dorneboſch, with the land betwixt them both, when it is ſ. ſ. w. from you, ſo farre that you may but even ſee it from below.

The Roſe-head. Woolſackes. Reefcoll.



Thus ſheweth the land betwixt Reefcoll and the Roſe-head, when you ſayle alongſt by it 3 leagues without the land.



Thus ſheweth the land betwixt Colbergen and the Stolp, when you ſayle alongſt by it about two leagues without the land.

The ſecond Demonſtration,

Where in are ſeth forth

The Sea-Coaſtes betweene Rijghs-head & Derwinda.

FROM the Roſe-head to the Heele, the courſe is ſ. e. 8 or 9 leagues diſtant. When you come neere the Heele, you are allmoſt ground, of in 13 fathom. On the coaſt of the Heele cloſe by the land, it is 24 and alſo 30 fathom deep.

Roade under the Heele.

Under the Heele you may anchor in 12 and 20 fathom cloſe by the land the ground there goeth off very much. If you be a little off from the land, then you are ground off, not very farre without the land you have no ground in 40 fathom. A league to the northwards of the Heele there runneth of a flat from the land, where of you muſt take heed, when you will go to anchor under the Heele, you may ankor on both ſides of the Heele but on the inner-ſide it is ſoft ground.

From the Heele to Danske before the Wiſſell, the courſe is ſouth and by weſt 5 leagues. If you will anchor before the Wiſſell, then anchor to the weſtwards of the Cheſts, or the Weſter-heap in 10 or 12 fathom.

Danske Deep

But for to ſayle into the Weſſell, or the Danske Deep you muſt loock for out the two Maſts with barrels upon them, which ſtandeth upon the Cheſts, or the Weſter-head, bring one in the other, and ſayle in right with them, in betwixt the Cheſts, but when you are within Termunde, you muſt chuſe the eaſter ſhoare, for the Weſt-ſhoare is flat, when you come before Boatſams flat, you muſt chuſe the ſide off the Green-ſhoare, and make there faſt with foure hawſes or Cables.

The Quinsbroug deepe lyeth from the Wiſſel, or the Cheſts of Danske eaſt and by north thirteen or fourteen leagues. From the Roſe-head eaſt ſoutheaſt ſoutherly 19 or 20 leagues, and from the Heele eaſt ſoutheaſt, eaſterly, twelve leagues.

From

Caerte van

PRVYSSEN

en Coerlandt, van Rygshooft tot der Winda.

't Amsterdam,

By Iacob Theunisz. op t water in de Lootsman.

Poesterpyck

Pautzke

Rygshooft

Pautzker pyck

Dantzigk

Melvung

Brunsberghen

Heiligh peil

Braudenburgh

Koningsbergen

Fischeren

Coersch Haff

Gotlandt.

Ter Lyba

C O R S A L

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Italiaensche mylen 20 in een graet

From the Wissel to the Quinsbroug-deep & all alongst to the northwards of it, it is altogether a faire white sandy strand, upon both sides off the deep stand some withered trees, to see to as if they where burnt, but upon the south-side stand two Capes, or beakons. If you will sayle in there bring the Capes one in the other, when you come in 10 or 8 fathom, and sayle in so right with them, and so you shall run right with the buyes, which lye on both sides of the Deep to 8 or 10 in number, to witt, on each side foure or five sayle in betwixt them, untill you come within in the Kettell. There is on certainty to be written of the lying in off this channell, as also off the Dans deep, where unto men might trust, for by reason of the scouring of the Freshuts, and with great streaming of the yce, they doe change oftentimes, & sometimes in short time, but the lords of the land there have very great care to give charge, that they be alwayes well set with buyes and beakons.

For to anchor in the road without the deep, then anchor so that the poynt of Loocksteed lye about north & by east from you, there it is 8, 9 and 10 fathom deep.

Within the deep in the Kettell, men do lye to tarrie for the wind in 3 fathom, and 3 fathom and a halfe.

For to sayle up the Haff go out of the Kettel about east untill you come against the Heert, and southeast over it and then alongst the Haff admist the channell unto the Haverstrome, the course is most east. Being over the Heert edge somewhat to the South-shoare for to avoyd that Riff which lyeth off from the North-shoare about a third part into the Haffe, to wit, from the poynt by east Fishouses, there lyet a little buye upon it, and come no neerer it then 12 or 13 foot. The right fareway is to the southwards of it 14 and 15 foote soft ground, untill about Brandenburgh, from thence further it is by little and little shoaler 12, 11 and 10 foot upon the Haverstraw. When you get the steeple of Quinsbrough in sigt, then you shall see also by it a round black litle wood; keep the steeple on the north or east side of that little wood', untill that you be past Brandenburgh, then let the steeple come a ships length to the eastwards of the little wood of trees, and sayle so rigt with it, till you come by the buyes or little trees of the Haver straw, there you must run throug amidst the channel betwixt them until you come into the Pregell which lyeth up n.e. unto the towne.

From der Pillo to Quinsbroug are about 8 leagues, but to Melven it is about 9 leagues, you must also sayle up there amidst the channell about southwest, but the poynt over against the Pillo, where the Castle Terbaly standeth, you must avoyd somewhat, which runneth far of flat.

Foure or five leagues north and north and by west from the Quinsbroug-deep lyeth the poynt of Brusteroort, and betwixt them both Looksteed, where upon standeth a Castle with a Church, not farre one from the other, and also two high Hommocks, or hills, and the land there abouts is all full of trees.

From Brusteroort to the Deepe off Der Memell, the course is northeast & by north 16 or 17 leagues. It is there betwixt them both a fair strand, & the land lyeth in a great Bay. The deep of Der Memell lyeth in northeast & northeast & by east, and is two fathom deep, within it you come into a great Haffe: you may runne to the westwards about the poynt, and anchor there where you will.

From Der Memell to Heyligena, the Coast lyeth north and by east 4 leagues.

From Heyligena to the poynt of Sevenbergen, north & by east, five leagues, that is with Hommocks and hilly land.

Four or 5 leagues north and by east from Sevenbergen lyeth Terlyba. There goeth into the land a little River, but there can go in no shippes, there is no more then 6 foot water. On the north-side off the River standeth a Gentlemans-house or Castle, with a turreth upon the midst of it, the north-end of the House is covered with boards, and the south-end with red tyles, to the southwards or the eastwards it stand also some Houses, covered also with tyles, in betwixt two woods to see to. If you will anchor in the road of Terlyba, then anchor a little to the southwards off the village so that the foresayd Gentelmans-house with the turret doe stand east and by north from you in 4 fathom and a half, and 5 fathom lesse two foot, there is the best road & ground that is there abouts. When you come out of the Sea, and fall with the land to the eastwards or to the northwards off Terlyba, you shall see within the land a black wood, and the houses in a ragged valley of Sandhills.

From Terlyba to Derwinda, the course is north-north-east 16 or 17 leagues, betwixt them both the land lyeth in a Bight, so that the coast alongst by the shoare lyeth not so right, especially 4 or 5 leagues by south Derwinda, there is falleth away into a great Bight, which men do call Sackerwyke, and also with more smaller Bights & Bayes towards Terlyba. Sackerwycke.

About 4 leagues to the northwards off Terlyba lyeth a poynt called Stickeroort, or Steenoort, thwart there of it is very flat, so that a good waye from the land, it is not deeper then 9, 10 and 12 fathom, all stony uneven ground, off this poynt you must take good heed, and not come to neere it. Anno 1599, in the Spring a man of Hoorn sayled somewhat neere to this shoale, and come on ground upon an unknowne Rock, and los shis ship. To the northwards of it, towards Derwinda thwart off Sackerwyck it is all cleane ground, and farre flat, at mony places a good wayes from the land not deeper then 6 and 7 fathom clean sandy ground, good for to anchor in, when you lye by there with a northeast winde, and can get nothing with turning to windwards come neere the shoare every where without feare in 4 or 5 fathum. Steenoort.

For to know this coaste of Coerland, then remember these places here under written. For to know Coerland.

At Derwinda standeth a Castle with three Towers, which is covered above with red tyles, and under it is white, about a league to the southwards of Derwinda, lyeth the Bake-ovens, which is nex to Domesnes, the best land to be known of Coerland, it ariseth first when you beginne to see the land, in a white Sandhill, the top where of is full of trees, but when you come so neer the shoare, that you can see the other land also then there ariseth more land with Hommockes, so that then it not so easy to beknown. Bake-ovens.

About 4 leagues to the southwards of it in Sackerwycke lyeth yet a Hommock or hill full off trees with some little Hommockes to the eastwards of it, when you are thwart of Derwinda, you may evon see it half wayes up to the top, but not well from below. This Hommocke is called by some Duke d'Alves Castle, and lyeth most alone: the land, as well to the southwards as to the northwards of it, is most all even and playn land. Duke d'Alves Castle.

About 6 leagues to the southwards of the foresayd Hommock, and 5 or 4 leagues and an half to the northwards of Terlyba, lye also two high Hommocks close on by the other, the land to the southwards of them towardes Terlyba, is to see to farre of (when you are thwart of these two Hommocks, or somewhat to the northwards of them) as iff it where all broken land, thwart of this about 5 leagues from the land, or when you can but even see the land from below, it is 30 fathom deep.

When you begin to come about Derwinda within 2 or 3 leagues of the land, there lyeth a banck of 12, 13 and 14 fatum; some say that west and by north from Derwinda there should be no more upon that banck then 5 or 6 fathom water, it is about a halfe league broad betwixt the banck and the land a league without the shoare, it is againe 20 and 24 fathom deep. Banck by Derwinda.

If you will anchor before Derwinda, then bringh the foresayd Castle about east southeast from you, then it commeth almost behind the high land, anchor in 5 fathom from the shoare, there is the best roade.

Of the depths & grounds abouts these Coasts.

Betwixt the Heele and the Rose-head, but neerest the Heele, there it is 33 fathom deep, and the ground is there white sand.

At the Heele in the roade it is 25 fathom deep, the ground black-sand, and going off to 30 and 40 fathom.

Betwixt the Heele and Quinsbrough it is very deepe, comming neere the Heele it is steepe, but towards Quinsbrough and the Nerungh it goeth up plainly flat.

The Sea-Coaſtes betwixt Derwinda and Revel.

How theſe Lands doe lye one from the other, and from other Lands.

From the Roſe-head to Axternes ſ. e. 4 leagues
From Axternes to Vernorden ſ. e. 1 league
From Vernorden to the Heele ſ. ſ. e. 1 league
From the Heele to Danske ſouth and by weſt and ſ. ſ. w. 5 leagues
From the Cheſt or Wiſſel off Danske to the Deepe off Quinsbroug eaſt & by north 13 or 14 leagues
From the Deep of Quinsbrough to the poynt of Bruſteroort, north and north and by weſt 4 or 5 leagues
From Bruſteroort to the Deep of Der Memell, the courſe is northeaſt and by north 16 or 17 leagues
From the Roſe-head to Quinsbrough deepe, e. ſ. e. ſomewhat ſoutherly 19 or 20 leagues
From the Heele to Quinsbrough, e. ſ. e. eaſterly 12 leagues
From the Roſe-head to Der Memell, e. n. e. ſomewhat eaſterly 29 leagues
From the Roſe-head to Sevenbergen n. e. and by eaſt 33 leagues
From the Roſe-head to Derwinda, northeaſt 53 leagues
From the Roſe-head to Gageroort, n. e. and by north 80 leagues
From Roſe-head to Eaſtergore, north and by eaſt 45 leagues
From the Roſe-head to Houbroug the ſouth-end of Gotland, nord 35 leag.
From the Roſe-head to the ſouth-end of Oeland n. w. 28 leagues
From the Roſe-head of Hannoe, the courſe is n. w. and by weſt, and weſt northweſt 43 or 44 leagues
From the Quinsbroug-deep to Houbrough the ſouth-end of Gotland north northweſt 48 leagues
From Quinsbroug-deepe to Southeroorden, the ſouth-end of Oeland n. w. ſomewhat weſterly 48 leagues
From Der Memell to Houbrough northweſt 37 leagues
From Der Memell to Heyligena north and by eaſt 4 leagues
From Heyligena to the poynt off Sevenbergen, north and by eaſt 5 leagues
From Sevenbergen to der Lyba north and by eaſt 4 or 5 leagues
From Der Lyba to Derwinda north northeaſt 16 or 17 leagues
From Der Memell to Bruſteroort ſouthweſt & by ſouth 16 or 17 leagues
From Der Memell to Danske ſ. w. 32 leagues
From Der Memell to the Roſe-head w. ſ. w. ſomewhat weſterly 29 leag.
From Der Memell to the Eartholms, or the north-end of Brontholm, weſt 64 or 65 leagues
From Sevenbergen to the Roſe-head ſ. w. and by weſt 33 leagues
From Sevenbergen to Southeroorden weſt 48 leagues
From Derwinda to the Roſe-head ſ. w. 53 leagues
From Derwinda to Brunt-hol w. ſ. w. 80 leagues
From Derwinda to Houbrough weſt ſomewhat ſoutherly 37 leagues
From Derwinda to Eaſtergore the courſe is weſt and by north 29 leagues
From Derwinda to the Gotſcheſand northweſt 31 or 32 leagues
From Derwinda to Dageroort north ſomewhat eaſterly 31 leagues

How theſe Lands doe ſhew them ſelves at Sea.



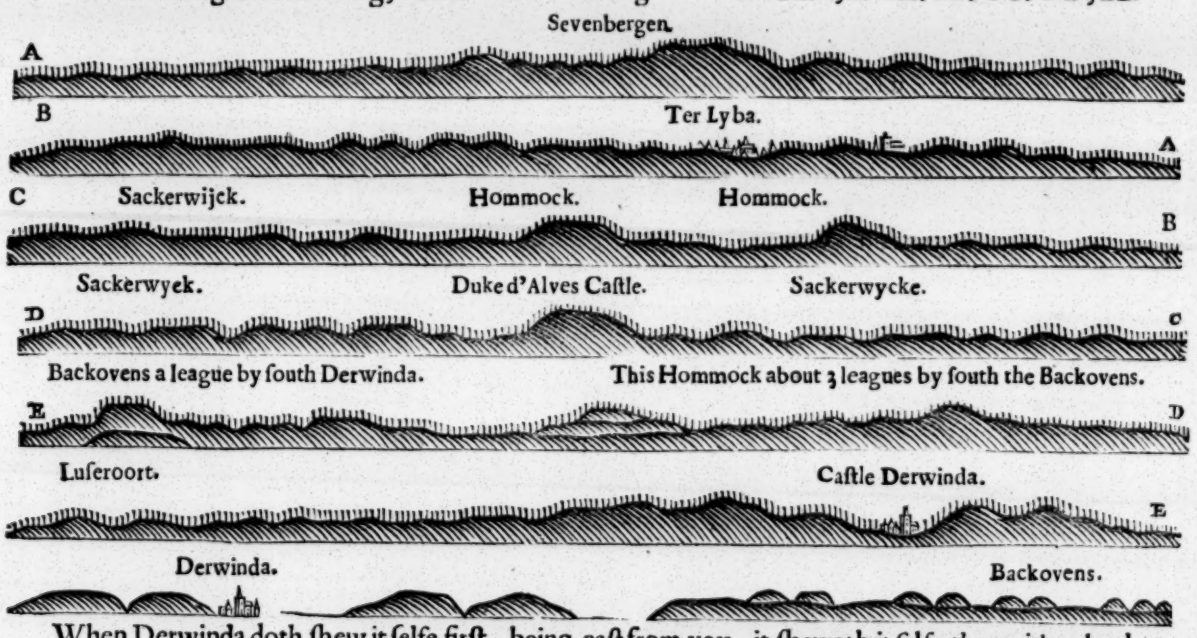
Thus ſheweth the Land betwixt the Roſe-head and the Heele.



Thus ſheweth the land betwixt Quinsbrough deep and Bruſteroort.

Thus ſheweth it ſelfe the coaſt of Coerland about Sevenbergen, when you ſayle alongſt by it a league without the land.

The coaſt of Coerland from Sevenbergen alongſt by Derwinda unto Luſeroort ſheweth, as is portrayed in theſe ſix figures following, the like markes belong one to the other, as AA, BB, CC, DD, EE.



When Derwinda doth ſhew it ſelfe firſt, being eaſt from you, it ſheweth it ſelfe thus with te land, as well to the northwards as to the ſouthwards, but when the Caſtle doth begin to come eaſt ſoutheaſt from you, then it goeth behinde the land, that you cannot ſee it.

The third Demonſtration,

Where in are Deſcribed

The Sea-Coaſtes betwixt Derwinda and Revel, and the Iſlands of Aland.

THE lying Derwinda, & how men ſhall know it, is here before declared.

From Derwinda to Lyſerorte, the coaſt lyeth n. e. and by north foure leagues, and from Lyſerorte to Domeſnes eaſt northeaſt 12 or 13 leagues. When you are thwart or Lyſerorte, you can perceive no poynt, it ſeemeth to be all an even right coaſt from Derwinda to Domeſnes, but commingh from Derwinda or Domeſnes, and being a league or two to the eaſtwards or to the weſtwards of it, you can ſee well that it is a blunt poynt, lying out. Thwart of Lyſerorte runneth of a great uneven ſhoale, at leaſt two leagues into Sea, but you need not feare of it, you may runne over it in 4, 5 or 6 fathom by the lead, like as alſo alonghſt all the coaſt of Coerland from Derwinda, untill about Domeſnes.

To the weſtwards of Lyſerorte the land hath a little bight,

Pascaert van

LYFLANT

ende Oost-Finlandt, van der Windt tot-
den de hoeck van Alandt ende voort-
tot Revel.

Der Wimea

Lusservirk

Dyckhyronden

Dorpat

Ilbrack

Irenssborch

Kowerwyck

Ratum

Paternosser

Ryga

Kan

Hamo

Lemsael

Parnou

Noort bodem

Aboo

Revel

Da

ger

oort

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Suy en Fra mylen 20 in een graet

bight, there you may anchor for n. e. e. n. e. and east winds: when it bloweth hard, and that you can do no good with turnig to windewards, you muſt bringh the point of Lyſerorte e. n. e. from you in 7 fathom there is clean ſand ground and good lying.

The land betwixt Domeſnes and Derwinda is very eaſy to be known. At the poynt of Derwinda it is high, and goeth ſloping down by little and little to the eaſtwards unto Lyſeroort: Likewiſe 3 or 4 leagues by weſt Domeſnes lyet a high blewhill, called the Doembergh, which is ſteep on the eaſt-ſide, and goeth by little & little ſloping downe to the weſtwardes unto neare Lyſerorte, ſo that there two hig double blew lands do go down into a valley one againſt the other, the low land betwixt both is Lyſeroert. The poynt of Domeſnes it ſelf is low ſandy land, it lyeth out about 3 leagues to the eaſtwards of the foreſayd Doembergh: but all that is together full of trees.

Lyſerorte.

The ſouthend of Oeſell lyeth from the poynt of Domeſnes n.w. and by weſt about 6 leagues aſunder, there runneth off a great Riffe, about ſouth and by weſt, and ſ. ſ. w. into Sea, towardes the ſhoale Lyſerorte, called Swalverorte, that is a dangerous riffe, at leaſt tree leagues long, verie hard and uneven, at ſome places towards Oeſell it lyeth dry above water, and at ſome other places it is two, two and an half and 3 fathom deep. To the weſtwards of that riffe lye alſo manie uneven Dwaelgrounds a good wayes of from the land, which lye alongſt the coaſt of Oeſel to the northwards, which are at ſome places not deper then two, three and four fathom.

Riffe of Oeſell.

Swalverorte

If you will goe to Rye, and comming out of the Sea doe fal with the land about Derwinda, the leave not the coaſt of Coerland, but runne about by it upon the lead, al along unto Domeſnes in 4, 5, 6 or 7 fathom, according as you have the wind, that you may not fall without, or to the weſtwards of that riffe Swalverorte. The channell betwixt Coerland and that foreſayd riffe is 14, 15 and 16 fathom, but very uneven. The ground upon the ſhoale twart of Lyſerorte is at ſome places alſo very uneven for to ſound, ſometimes 6, ſometimes 8 and 9 fathom, the one caſt at leaſt 2 or 3 fathom more or leſſe then the other, and not very farre from the land, but you need not feare of it, you may bouldly runne to the ſhoare in 4 and 5 fathom.

But it (when you come out of the Sea) you are paſt Lyſerorte, and come with the land to the northwards of it againſt Oeſell, then you have deeper water, for not far to the weſtwards without Swalveroerte it is 13 fathom deep. If you can ſee Oeſel and Coerland, and that he Doemsberg be e. ſ. e. or ſ. e. and by eaſt from you, then runne on e. ſ. e. untill you come neare Coerland, for to avoid Swalverorte, and then alongſt by it upon your lead towards Domeſnes, as is beforeſayd. Or when as you have the Doemberg e. ſ. e. from you, then keepe it ſo ſtanding from you, and ſayle in ſo rigt with it, and then you ſhall (without hurt) runne alongſt over the tayle of the outermoſt ſhoale of Swalverorte, it ſhoaleth up tere very ſone and ſuddainly from 13 or 15 and 9 fathom, but if you bringe the eaſt-ſide of the Doembergh not more ſoutherly from you then e. ſ. e. and ſ. e, and by eaſt then you ſhal not meet with any dangers of the Dwaelgrounds, not of Swalverorte, you ſhall thus faile alongſt at leaſt 3 leagues over the Dwaelgrounds and Swalverorte, over very uneven grounds, the one caſt at leaſt twelve, the other nine, and alſo wel 7 and 6 fathom, but goe on your courſe without feare, when as the Inner-ſide, or eaſt-ſide of the ſouth-end of Oeſel commeth to be north & north and by eaſt from you, then you are over the riffe, within al the foule grounds that migt hurt you when as that you get then 13 or 14 fathom, then ſayle bouldly without fear towards Domeſnes.

Mark from Swalverorn.

If it ſhould happen, that with a n. w. winde, you ſhould fal with the land to the northwards of Derwinda or Lyſerorte, and ſhould fear to come neere the Coaſt of Coerland, then keepe not further of to Sea, then that the eaſt-poynt of Doemberg be e. ſ. e. from you, when as then you bring the eaſt-ſide of the ſouth-poynt of Oeſel n. n. e. from you, then you ſhal runne alongſt over Swalverorte in 7 fathom. Betwixt Oeſel and Coerland it is 16 and 17 fathom deep. When as Domeſnes is ſ. e. and by eaſt, and the ſoud-point of Oeſel n. w. by north from you, and that you are a like neare to them both there it is 18 fathom deep.

From the poynt of Domeſnes runneth of alſo a riffe n. e. and by north or a little more northerly a league and half into the Sea, which is on the eaſt-ſide very ſteepe, but on the weſt-ſide ſomewhat flatter.

When you come from out of the weſt, and are bound to Rye you may runne about by it upon your lead, in 5, 6, 7, 8, 9 an 10 fathom, ſo neare as you will, but according as the winde and weather ſhal be. I know of ſome that have ſounded about it in 4 and 4 fathom and half: but he that wil runne ſo ſomewhat neare about it muſt be very carefull in uſing of his lead, and not let it reſt.

Not very farre from the riffe, on the weſt-ſide it is 12 & 13 fathom deep. When as the poynt of Domeſnes; where the with red trees ſtande upon come to be ſ. ſ. w. from you then you come on againſt the weſt-ſide of the riffe, when that point is ſ. w. & by ſouth from you, then you are right thwart of the point, but when it is ſ. w. & ſ. w. and by weſt from you are about the riffe, and then you may bouldly goe on ſ. e. towards Rye. Domeſnes and the Deep of Rye lye ſ. e. and n. w. 20 leagues diſtant.

About 8 leagues to the eaſtwards or to the ſouthwards of Domeſnes, runneth off another riffe from a poynt which you may ſound about in 5 and 6 fathom. The land betwixt Domeſnes and that poynt lyeth about ſ. ſ. e. and n. n. w. but to the ſouthwards of it, falleth away to the ſouth; ſo that betwixt this poynt, and the Deep of Rye, there is a great bay, which is called the Kowerwyck: ſomewhat to the ſouthwards of this point in the bay, lyeth ſome high land, which lyeth from the Deepe of Rye weſt and by ſouth, and eaſt and by north. It muſt be very cleare weather when you can ſee it, lying at ancher before the deepe of Rye.

Kower wyke.

When as (comming from Rye) you ſhal be ſomewhat to the ſouthwarde in the Koperwyke, & come running out of there by the ſhoare, this foreſayd poynt hath thus oftentimes been miſtaken for Domeſnes, becauſe that you can ſee no Land without it, but when as you come about the poynt, you ſhal againe ſee the Land out a head, then you are yet about 8 leagues from Domeſnes.

Under the poynt of Domeſnes you may anchor on both ſides, as wel to the weſtwards as to the eaſtwards. If you wil anchor to the weſtwards of it, then anchor in 6, 7 or 8 fathom, there you have good ſand-ground, and ſheltred for eaſt and ſ. e. winds. If you wil anchor to the eaſtwards of it, then anchor in 6 or 7 fathom, a little within the poynt of the land, ſo that the poynt be north or north & by weſt from you, there is good ſandie ground, and good lying for a ſ. ſ. w. w. n. w. and n. n. w. winde: the poynt of the riffe lyeth then from you about n. n. e. a league & a half. If you wil anchor further from the ſhoare, ſo that the point of Domeſnes be n. w. or n. w. & by north from you, there it is 18 & 20 fathom deep and ſoft ground.

If that you are comming of from Rye againſt the riff of Domeſnes, you wil ſayl about it, then you muſt runne far enough about without it, or if you will take it ſomewhat near, you muſt be exceeding careful in uſing your lead. It is (as hath beneſayd) verye ſteepe on the eaſt-ſide, with a n. w. waye (which runneth thwart into the riffe) you ſhall have the one caſt 12, 9 or 8 and the next caſt 4 or 3 fathom, if you fal within the point off the riffe. But if you have been at anchor under Domeſnes, and ſet ſayle from thence and will ſayle about it by your lead. Goe from thence n. n. e. & n. e. and by north, that runneth moſt alongſt by the riffe. When the point of Neffe commeth about weſt from you, then it wil be by little and little ſomewhat ſhoaler, you muſt not ſpare your lead, but muſt ſound of then. With a n. w. courſe come not nearer it then in 9, 10 or 12 fathom. When the point of Nes commeth to be ſouthweſt from you, you may run about, ſound it ſo in 5, 6 or 7 fathom, then you come to the ſide of the riffe, when that is ſouthweſt and by ſouth from you, then you are right thwart of the point of the riffe, but when it is ſouth ſouthweſt from you, then you are about the riffe, go then weſt ſouthweſt or more ſoutherly towardes Coerland, and runne alongſt by it, in five, ſixe or ſeven fathom (according as the wind ſhall be) toward Luſeroort.

Road under Domeſnes.

If you sayle from Rye with an east or northeast winde, & shall sayle by night about the riff, then set your course, so that you before you run farre enough alongst to the northwards or without the Riffe, and keepe that course untill that you come neare the grounds of Ambroock or Oesel in 15 or 16 fathom, then you shall be without doubt past the riffe, then goe on a while southwest untill that you reckon the poynt of Domesnes to be s. e. or somewhat more easterly from you, then edge up to the Coast of Coerland by your lead, and runne alongst by id, in 4, 5, 6 and 7 fathom, as hath been beforesayd.

Round. East and by north, somewhat easterly, eight leagues from Domesnes lyeth the Island Round: you may runne round about it by your lead, in 6 or 7 fathom: All alonghst the southwestside it is al foule and sharp rockie ground, therefore come not nearer the shoare there, then in six fathom. South southeast about a half league from the south-poynt lyeth a little plate, where upon it is not deeper then 6 foot, there hath once a man beaten of his rudder. It lyeth betwixt 7 and 8 fathom deepe, for to avoyd that, take there-abouts the sounding of the shoare in 5 or 6 fathom, & then you run throug betwixt it and the shoare, or els if you keepe in 8 or 9 farhom, then you runne about without it.

Road under Round. If you will anchor under Round for a s.s.w. s.w. or w.s.w. winde, then runne about the southeast-poynt, untill you come to the east-side, there is a little bay, where stand a few houses with a Chappel, which you can see when you come somewhat neare to the shoare, anchor thwart of it in five fathom, so that the Chappell doe stand southwest from you, there is the best road under Round, beingh clean sandy ground, but when it bloweth hard the Sea commeth rouling in. At other places it is not cleane.

The fareway betwixt Round and Domesnes is 22 and 23 fathom deepe, and betwixt Round and Duynemond 23 & 24 fathom.

From Round to the Deepe of Rye, it is s.s. e. 15 leagues. Before the Deepe of the River Duyn, you may ankor in 10 fathom, either to the southwards or the northwards of it, where you please.

The Deep of the River of Rye. The deep of the River of Rye is Pilots water, as well in sayling up, as sayling of. How men shall sayle there in or out, it is not possible to describe, so that men might relye upon it, for by reason of the continuall scowringh of the Stream, & specially by some extraordinaire great Freshuts, and strong drifts ofte Yce, the depths and shoaler do there often shift and change, where of every one that is bound thiter may be mindfull of.

Lemsael. From the Deepe of Rye to Parno, the course is n. n. e. and n. e. and by north 25 leagues betwixt them both, about 14 leagues from Rye lyeth a little towne called Lemsael or Sales, there goeth in a little deepe of 8 foot water. Before that Deepe lyeth a banck, which you may sayle about on both sides, & come within it, there it is 3 fathom deep. The

Kinne. Island Kyn lyeth from Sales n. w. and by west 7 leagues: from Round east and east and by north 7 leagues, and from the Deepe of Rye north & by east about 14 or 15 leagues. It is a little low Island, about two leagues long, and hath round about it most foule ground. Betwixt Kyn and the coast of Lysland it is 7 leagues broad, and the rigt deep betwixt them both is 8 and 9 fathom deep.

Ambroock. Northwest 8 leagues from Round, and north and by east 7 leagues from Domesnes lyeth Ambroock, that is a little Island, which is round about foul, with sharp stony ground, & lyet two leagues distant from the coast of Oesel. Betwixt Round and Ambrook but neareſt Ambrook lye many uneDwael-grounds ven Dwael-grounds, of 3, 4 and 5 fatum. Ambrook & the south-end of Oesell lye e. n. e. somewhat northerly, and

Roade under Oesel. w. s. w. somewhat southerly, about 5 leagues distant. Under the south-poynt of Oesell on the east-side is a good roade for westerly winds. If you will anchor there, then anchor in 8 or 7 fathom, so that the white Church, which standet somewhat within the southermost-poynt, doe stand west and by south from you there is good soft clay ground, and you shal lye sheltred for a west and west southwest winde. The ground is there very even & flatt, when as you get the 7 fathom, & saile towards to land it continueth long al one depth of 7 fathom, untill you come very close by the shoare before it will be shoaler.

It is there all alongst by the east coast of Oesel flat ground of 3, 4 and 5 fathom.

For to sayle from the south-end of Oesell unto Arentsbergh through within Ambroocke, you must leave two thirds of the water on the larboard-side towards Oesell, and on third part on the starboard-side towards Ambroocke, there you shall have about 7 fathom water, and soft claye ground, towards the Coast of Oesell it is full of uneven Dwale-grounds; alonghst by the west-side of Ambrooke you cannot lightly take hurt.

Arentsbergh lyeth from the south-end of Oesel n. e. di- Arentsbergh. stant 8 leagues, but from the Island Ambrook n. n. w. 4 or 5 leagues. Upon the west-side of Oesell, the coast lyeth of from the soud-end unto Hodsoorte, with divers bayes about n. n. w. & s. s. e. 12 leagues, betwixt them both lye two lade places, Wyke & Reeck. Alongst this west coast of Oesell lye verye manie uneven and foul grounds, where of men must take very good heed.

Hondtsoort, the n. w. poynt of Oesell, and the poynt of Dagerorte lye n. n. w. and s. s. e. about eight leagues distant. Betwixt them both is a great haven there runneth also a Channell through, but it is so shoale that no ships can go throug, and all over sharp and uneven ground. Upon Da- Tower Dagerorte. gerorte standeth a high Tower which the Whorty Counsel of the towne of Revell caused there to be buiked, for to know the land by, which men may see on the both sides of Dagerorte farre into Sea, and also may see over the land faire in the foresayd buye.

Under the poynt on the south-side of Dagerorte is good lying for north and n. e. winds and cleane sand ground, you may sound about the poynt of Dagerorte in 7 or 8 fathom, on the north-side of the poynt is good road for southerly winds.

From Dagerorte to Syburghnes, the coast lyeth e. n. e. 7 leagues. Betwixt them both, to witt, 3 leagues from Dagerorte, and four leagues from Syburghnes, lyeth a ground, going flat of thwart from the land n. w. into Sea, at least 5 or 6 leagues, allmost in manner as the great luttish riffe, is first of 3, 4, 5, 6 and 7 fathom deep, & Waxeth deeper by little and little towards the Finnish Scheers, where at last it runnet to nuthing.

About three leagues without the land of Dagerorte, north and north and by east from the high tower, there lyet a suncken rock which is very steep, where upon there is no more then 10 foot water: A man of Ossanen hath beaten upon it, which went no deeper then 11 foot and a half, presently after the stroste he cast the lead, and found 5 fathom depth. The tower of Dageroort was then from him south and south and by west.

Syburgnes is an out poynt, with two poynts, from each Syburgnes. of which shooteth off a riffe, betwixt these two riffs is a faire flat sand strand, where you may anchor so neere the shoare as you will, in 6, 5 or 4 fathom.

A little to the westwards of the westermost poynt of Syburghnes, not farre from the land lyeth a shoale under water, about so great as a shipp, where upon it is not deeper then 12 foot.

From Syburgnes to Oetgensholm, the course is east & by north 7 leagues betwixt them both goet in the Moensound.

To the southwards of Oetgensholm goeth in a great bay into the land, where in lyeth an Island, & behinde it a little towne, called Ha-psael, there you may anchor where you will. On the southwest-side of this baye, runneth of a great shoale or ledge of rocks at least a great league into the Sea, which is very broad, you may runne in alongst by it into Moensound.

East n.e. & w. s. w. from the east-hoeck of Oetgensholm a league in Sea lyeth a cliff under water, where upon in the yeare a man of Harlingen is cast away.

From Syburghnes to the Oxeholm and the Grasholm, Oxeholm. Grasholm. the course is south southeast 4 or 5 leagues, the Gratholm are two little Greene Islands, and the Oxholme lyeth about a league to the northwards of the Grasholm, about which you may sayle, and anchor round about, a little league northeast from the Oxholm lyeth a ground loose from the land, which you must avoyde, called the wester Grafgrounds, there are two shoales, which are called the Gras-

s-grounds, the other Graſground, which is called the ermoſt, lyeth over againſt the Graſholm, towards the of Hapſael, upon which there is no more then five foot er. He that will ſayle into the Moen-ſound, muſt take d there of.

He that wil ſail off from Oetgenſholm throug the Moen-nd, muſt goe on ſ. ſ. w. to the Graſholm, & ſail in cloſe by for to avoid the Graſground, which lyet to the eaſtwards t againſt it. From the Graſholm to the point of the Oe-, where the great three ſtandeth upon, the courſe is eaſt 6 leagues. From the Graſholm towards Oeſell lye four e Iſlands, each about a league one from the other.

When as you ſayle from Graſholme towards Oeſel, you ſt ſail alongſt by theſe little Iſlands, leaving them lyingh out two or three cables lengts on the ſtarboard ſide, until you come to the land of Oeſel, over againſt the great ee. In this fareway it is 5 fathom deepe.

When as you come ſailing ſo alongſt paſt the Graſground ſhall meete with an Iſland on the larboard ſide, to the rdwards of it goeth in the Depe unto the caſtle of Moen-nd in 3 fatum, but ſometimes it is ſhoaler, for there it is al of land. To the ſouthwards of the ſame Iſland goeth in other Deep, which you may ſail throug, untill you come the end of Oeſel, and then you leave the two little Iſlands the ſouth-end of Oeſel lying on the ſtarboard ſide. But e rigt & beſt deep goeth from the foreſaid great three, in ongſt by the land of Oeſel, which is 3 & 4 fathom deepe, at laſt it will be 6, 7 & 8 fathom: when you ſaile alongſt ree, you leave the foreſaid two little Iſlands by the ſouth-d of Oeſel lying on the larboard ſide. From the great tree the firſt little Iſland, the courſe is e. ſ. e. 8 or 9 leagues, d then from the firſt little Iſland to the ſecond ſoutheaſt nd forth to the end of Oeſel eaſt and by ſouth.

From that end or northeaſt point of Oeſel runneth of a al riffe, a great half league into the Sea, called the Pater oſter, which you muſt avoyde.

From this northeaſt-poynt of Oeſel unto Parno, the coaſt f Lyfland lyeth e. ſ. e. and w. n. w.

When you come about that poynt, you may ſayle into he ſea or buye of Rye, where you will, weſt & by north to Arentsberg, ſ. w. or ſomewhat weſterly to Ambroke, ſouth omewhat eaſterly to Round, ſ. e. & by ſouth to Kinne, or here you will, the lying of Kinne is deſcribed here before.

From Kinne to Magno and Sterckholm all alongſt unto Parno, the courſe is n. e. & by n. 8 leagues. Thwart of Mag-o & Serkholm it is betwixt Coerland & the Iſlands 5 & 6 thom depe, & alongſt Coerland altogether a fayre ſtrand.

Parno lyeth in a great Baye, it is there in the roade 3 and fathom deep. For to anchor there, you muſt anchor ſo that he ſteeple of Parno ſtand n. n. e. from you, there is the beſt oade.

Oetgenſholme and Syburghnes lye eaſt & by north and eſt and by ſouth 7 league diſtant one from the other.

You may ſayle round about Oetgenſholme, and anchor nder it for northerly & northweſt winds in 6 or 7 fathom, ut you muſt beware of the Blinde as before is ſayd.

From Oetgenſholm to great Roge, the courſe is eaſt 4 agues, betwixt them both, a little to the ſouth-wardes of he fareway lyeth a ſhoale even above water, which you ay ſayle round about, but you may not come verie neare becauſe it is ſtonie & rockie round about it. Great Rogge an our poynt with 2 or 3 white Chalk hills, and thereby is erie eaſy to beknowne. Betwixt this poynt and Oetgen-holm, ſomewhat more ſoutherly lyeth another Poynt, alled little Roge betwixt it & great Roge, goeth a broade ound into the land of 6 and 7 fathom depth; but in the end is ſhoale. There-abouts it is all cleane grund and good for o anchor in.

From great Roge to the Iſland Nargen, the coerſe is eaſt omewhat northerly five leagues.

When you ſayl from great Roge towards Nargen, you al finde 4 leagues to the eaſtwards of great Roge an other oynt with 2 white chalk ſpots, called Surp, betwixt it and reat Roge, the land falleth away to the ſouthwards, into a reat baye. If you will ſayle to Revel, then ſayl alongſt by hat poynt of Surp, towards Nargen, leaving it on the lar-oard ſide of you, going on ſtill eaſt nuntill you come to the aſt end of Nargen. Being there by it, then goe on eſt ſud eſt a league & an half, & then you ſhall come by the end of the riffe which lyeth of from the Blote Kareles, come no nearer it then in 6 fathom. When as the caſtle of Revell commeth without the Karels, then ſayl rigt unto the head of Revell, untill you come to the eaſt ſide, let your anchor fall there, & then hawl with the fore ſhip or ſtearne, to the head, & make you faſt by 4 cables, for the north & n. n. weſt windes which blow there flat open in, making it a lee ſhoare, ſo that ſome-times with ſuch winds there commeth in a rowling ſea. Riffe of the Karels Revell.

Eaſt about 4 leagues from the ſouthend of Nargen, lyeth the Iſland the Wolfe, which is about a league long.

North northweſt, & n. w. & by n. 2 leagues from the weſt end of the Iſland the Wolf, & n. e. & n. e. & by e. from the n. end of Nargen lyeth a rock under water, called the Revel-ſtone, althoug there be no more water upon then 3 or 4 foot, yet it is in the Summer time with a faire weather, oſten-times ſo ſmooth water, that it doth noth break upon it, & it is alſo very ſteep, ſo that you may not come neerer it by your lead then in 12 fathom. The markes for to knowe the place of this Revelſtone are theſe. When the eaſt end of Nargen is ſ. w. & ſ. w. & by weſt from you, & the high ſteeple of Re-vell is a capſtane barts length, or a litle more to the weſt-wards of the weſt end of the Iſland the Wolfe, then you are right thwart of this rock. The ſteeple of Revel is alſo then rigt ſoud from you. But when the ſteeple of Revell com-meth to the Wolfe, & that you are bound to the eaſtwards, and you are ſurely paſt this Revell-ſtone, and a good wayes to the eaſtwards of it. Revell-ſtone. The Wolf.

From the weſt end of the Iſland the Wolfe lyeth of a riff to the nortwards into ſea, about an Engliſh mile toward the Revell-ſtone, upon the end of this riffe lye 5 or 6 roks a little above water. If you come away from Revel on n. & by weſt alongſt by the Wolf, then marke the poynt of Surp, when that commet even unto the ſ. end of the Iſland Nargen, then you ſhall alſo have even the length of the foreſayd riffe. If you looke out then on the ſtarboard ſide, and be not ſayled very farre alongſt to the weſtwardes of the Wolf, you ſhall ſee the foreſayd rockes (lyingh upon the end of the riffe) lye thwart from you, and then you may run to the north-wards about by them in 5 fathom without doyng amiſſe.

Betwixt Nargen and the Wolf lyeth alſo a ſtony ſhoale which is very broad, but much neerer Narghen then the Wolf, & lyeth from the ſouth point or Nargen about n. e. & from the n. poynt e. ſ. e. Therefore if you bring the ſ. poynt of Nargen about ſ. w. or ſ. w. & by ſ. & the foreſayd north poynt w. n. w. from you, and that the Wolf lye then free from the mayne land, you ſhall not miſſe to fall upon this ſhoale. Shoale of Nargen.

You may ſayle round about Nargen, & alſo anchor under it for northerly & weſterly winds in 10, 12, 14 & 18 fathom. Nargen

From Nargen to the Iſland Wranger the courſe is eaſt 7 leagues. The lying there of you may ſee in the followingh directions.

Of the Coaſt of Finland, betwixt the Alands Haffe and Elſenvos.

BEtwixt Uxe or Boſtell on the coaſt of Sweden, and the Iſland of Aland, goeth in the Alands Haff, which men doe call the north Bodem, which lyeth up ſo farre to the northwards into Finland, that a ſhip with hood freſh way ſhould ſcarce be able to ſayl to the end off it in 5 dayes, upon the fart-heſt end of this north Bodem lyeth the towne Toren, there Sweden is parted from Finland. Aland.

At the outermoſt rocks of Finland on the Alands Haff lye 3 Iſlands, Ercke, Caſtelholm and Corpe. Ercke is the weſtermoſt of all, and the outermoſt, from thence goeth in the Corpe ſound, north-eaſt alongſt thwart of Caſtel-holm and Corpe. Corpe lyeth within the other Iſland, and from Corpe you may edge over into the Liet of Abbo, which commet runningh off from Uttoy: you may alſo ſayle up into this channel about behind Lipland, and ſo come out into the north Bodem. Ercke, Caſtel-holm & Corpe.

Uttoy is a great Iſland, upon it ſtandeth a great maſt with a barrell for a beakon, and lyeth from the Iſland Corpe eaſt and weſt about 9 leagues. On the weſt-ſide of Uttoy goeth up the Liet of Abbo, which lyeth in firſt north and north and by eaſt about 3 or 4 leagues, and then you come on againſt a great Iſland. And then it lyeth alongſt that great Iſland n. e. unto the Sound of Abbo. Abbo lyeth at the end of that foreſayd great Iſland. This Liet runneth up alongſt to the eaſtwards through betwixt the rocks about 13 leagues, within it lyeth a rock under water, which a Magnes or Load-ſtone, alſo the grounde ſeemeth to be there of the Vertue of the Load-ſtone, or when you come there abouts, the compaſſes doe not ſtand, but run and turne without any certain ſtandingh ſtill, untill that you be at leaſt a league paſt it, and then they begin to ſtand right againe. Uttoy. Abbo. Magnes

From thence

thence it lyeth e. and e. and by ſouth all alongſt throug the rocks unto the Roug Iſland, to the weſtwards of it runneth the channell of Luys into the Sea, when you are thwart of it at Sea, you may ſee the land of Revel. It is there betwixt them both, to witt, betwixt the Out-rockes & Nargen, or the land there abouts 10 leagues broad.

The Out-rocks of Luys, and the channell of Uttoy lye e. and w. about 21 or 22 leagues diſtand, althoug it be there betwixt them both all broken land, and full of rocks, yet nevertheles there are no havens nor channels fit for ſhips to come into.

From Luys alongſt without the Rocks to the channel of Elſenvos, the courſe is eaſt and by north 15 or 16 leagues, but Nargen or the Wolf, and the channell of Elſevos lye n. n. e. & ſ. ſ. w. about 16 or 17 leag. aſunder.

How theſe Lands doe lye one from the other, and from other Lands.

From Derwinda to Lyſerorte n. e. 4 leagues
From Lyſerorte to Domeſnes e. n. e. 12 or 13 leagues
From Domeſnes to Round e. and by n. ſomewhat eaſterly 8 leagues
From Round to Duynemond or the mouth of the River of Rye, ſ. ſ. e. 15 l.
From Domeſnes to Rye or Duynemond ſoutheaſt 20 leagues
From Duynemond, Lemſael or Sales northeaſt 14 leagues
From Duynemond, or the mouth of the River of Rye to the Iſland Kin, north and by eaſt 14 or 15 leagues
From Round to the Iſland Kinne, eaſt and by north 7 leagues
From Domeſnes to the ſouth-end, or the road of Oeſell northweſt and by north 6 great leagues
From Domeſnes to Ambroeck, north and by eaſt 7 leagues
From Round to Ambroeck northweſt 8 leagues
From the ſouth-end of Oeſell to Arentsberg, northeaſt 8 leagues
From Luſerorte to Houbroug, w. & by ſ. ſomewhat weſterly 40 leagues
From Luſerorte the poynt of Alant or the Iſlands, north and by weſt ſomewhat weſterly 52 leagues
From the ſouth-poynt of Oeſell to Hondſorte, n. n. w. 12 leagues
From Hondſort to the poynt of Dagerorte n. n. w. 8 leagues
From Dagerorte to Syburgnes, eaſt and by north 7 leagues
From Syburgnes to the Oxeholme & the Grasholme, ſ. ſ. e. 4 or 5 leagues
From the Grasholme to the great Tree upon Oeſell, ſouth 5 or 6 leagues
From the northeaſt-poynt of Oeſell to Parno ſoutheaſt 20 leagues
From Arensberg to the northeaſt-poynt of Oeſell, eaſt & by ſ. 8 or 9 leag.
From Ambroeck to the northeaſt-poynt of Oeſell, northeaſt ſomewhat eaſterly 9 or 10 leagues
From Round to the northeaſt-end of Oeſel, n. ſomewhat weſterly 1[illegible]
From Lemſael to Parno, north and by eaſt 11 leagues
From Dagerorte to the Roſe-head, ſ. w. and by ſouth 80 leagues
From Dagerorte to Eaſtergore ſouthweſt and by weſt 39 leagues
From Dagerorte to the Gotſcheſand, weſt ſouthweſt 26 leagues
From Dagerorte to Boechſchaer n. w. and by w. 18 leagues
From Dagerorte to the poynt of Aland or the Iſlands, northweſt and by north 26 or 27 leagues
From Syburgnes to Oetgensholm, eaſt and by north 7 leagues
From Oetgensholm to great Roge, eaſt 4 leagues
From great Roge to Surp eaſt 4 leagues
From Roge to Nargen eaſt ſomewhat northerly 4 leagues
From the ſouth end of Nargen to the Iſland the Wolf, eaſt 5 leagues
From Revell to the Wolf, north ſomewhat eaſterly 5 leagues
From Oetgensholm to the Out-rocks of Luys, n. & by eaſt 15 or 16 leagues
From Syburgnes to the Channell of Abbo, or Uyttoy, northweſt and by north 20 or 21 leagues
From Uttoy or Abbo to the channell of Luys, the courſe is eaſt 21 leagues
From Luys to the channell of Elſenvos, eaſt 16 or 17 leagues
From Nargen to the channell of Abbo, the courſe is w. n. w. 32 or 34 leagues
From Nargen to the channell of Elſenvos, n. e. and by north 17 leagues
From Nargen to the Outrocks of Luys n. w. and by north 13 leagues
From the Wolfe to Peltingſcheres eaſt northeaſt 20 leagues
From the channell of Abbo to Boegſchaer, ſ. w ſomewhat ſoutherly 16 leagues
From the Iſland the Wolf to Wranger, e. and by ſouth 3 leagues

How theſe Lands doe ſhew them ſelves at Sea.

Domeſnes. Doembergh. Lyſeroort.

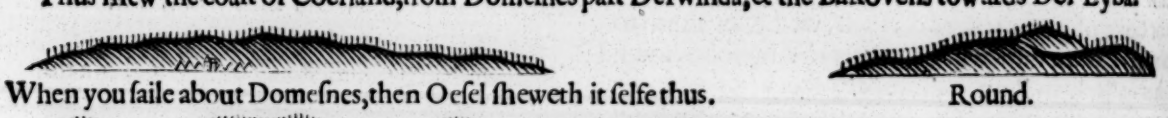


Coerland ſheweth it ſelfe in this forme, betwixt Lyſeroort & Domeſnes, when you ſaile alongſt by it.

Domeſnes. Doemberg. Lyſeroort. Derwinda. Backovens. Towards Der Lyba.



Thus ſhew the coaſt of Coerland, from Domeſnes paſt Derwinda, & the Bakovens towards Der Lyba.



When you ſaile about Domeſnes, then Oeſel ſheweth it ſelfe thus. Round.



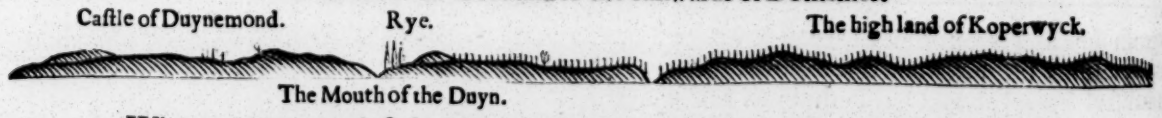
The Iſland Round, when you ſayle alongſt by it, ſhewet it ſelfe thus. The litle Iſland Ambroek.

Doembergh. Domeſnes.



Thus ſheweth Coerland to the eaſtwards of Domeſnes.

Caſtle of Duynemond. Rye. The high land of Koperwyck.



The Mouth of the Duyn.

When you come againſt the Mouth of the Duyn, the River of Rye, the land ſheweth it ſelf on both ſides of it thus.



When Dagerorte is n. n. e. 4 leagues from you, it ſheweth thus.



Dagerorte being n. e. from you 3 or 4 leagues, ſheweth it ſelf thus.



In this forme appeareth Dagerorte, when the Towre is eaſt and by ſouth, and the northermoſt-poynt is eaſt from you 4 leagues, and then you may even ſee it in clear weather from below.



When as the Towre upon Dagerorte is ſ. e. and by ſouth, and the land to the eaſtwards of it is ſ. e. 4 leagues from you, then it ſheweth it ſelfe thus.

Syburgnes.



When the Towre of Dagerorte is ſ. ſ. e. from you, then it ſheweth it ſelfe (with the land to the weſtwards of it) thus.

Thus

O O S T

Elsenvos

Borgo

Cuma

Fromal

Reisanborgh

Peltingh

Peltingh south

Peltingh scharen

Putsagre

Kalkbren

Egeram Elsenvos

Sandam

Wolfs

Schoeland

Kock schar

Wranger

Clyn Wranger

Eyland met de stengh

Clyne Tuyers

Eckholm

Kalk grond

Rock

Brocklom

Wesenborgh

S Y F S A N D

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

FINSLAND.

Wyborgh

Veymax

Vckelax

Olssy

Iegores

Rohd

Rwansh

Cleyne Visscher

Goeschaer of Groot Visscher

Quade Schaer

Buerko

Schans ter my

Sommers

Narva

Rutte sarre

Reuensari

Copori

Colega

Castram

Russe haken

RVSLAND.

de Zee-custen van

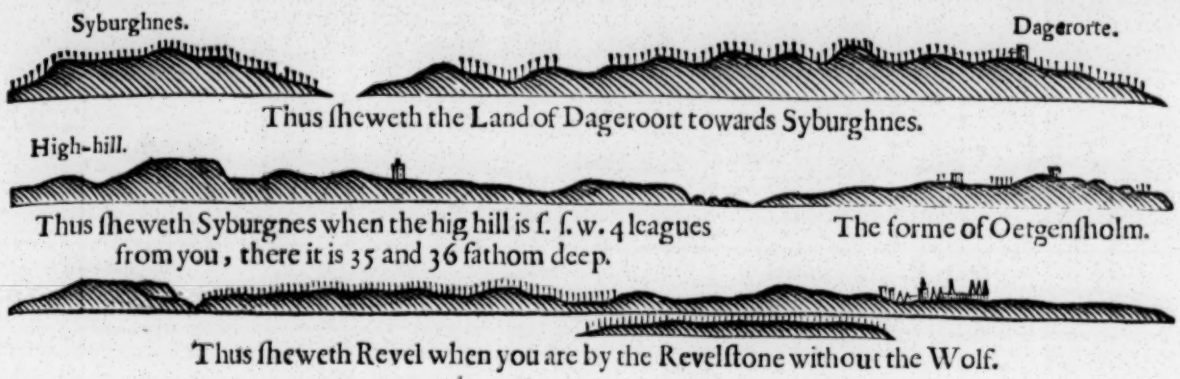
LIIFLANDT.

En Oost Finlandt, van Wolfs-oort tot aen Wyborgh

't Amsterdam.

By Iacob Theunisz. op't water inde Lootsman.

Der Narva



Thus sheweth the Land of Dageroort towards Syburghnes.

Thus sheweth Syburgnes when the hig hill is s. s. w. 4 leagues from you, there it is 35 and 36 fathom deep.

The forme of Oetgensholm.

Thus sheweth Revel when you are by the Revelstone without the Wolf.

The fourth Demonstration,

Where in is sheweth

The Sea-Coastes betweene the Wolf and the outermost of the East-Sea.

Wranger. THE Island Wranger lyeth from Nargen east distant 7 or 8 leagues, and 3 leagues east & by south from the Wolf.

Under Wranger is on both sides good road & good anchor ground, especially on the soud-side, where there is a Bay, then you may anchor betwixt the two points, in 10, 12 or 14 fathom, according as shall be convenient, and lye sheltered for a n. e. & east and also for n. w. and west windes. You may saile round about Wranger, but from some points (as from the south-point, & from the north-point) lye of some little riffes, where of you must take heed, and be careful in using the lead when you saile about by them.

Little Wranger. About an English mile from Wranger lyeth little Wranger, a little long smal Island, lying about n. w. and s. e. which is rocky and foul, especially on the n. e. side. From the s. e. point runnet of also a rocky rif where of you must take heed.

On the s. e. side is good anchoring for n. e. and east windes, anchor under it so that the s. e. point lye about east from you, there is good lying for n. e. and east windes.

From the n. w. point runneth of also a little riffe, which you may sound about in 4, 5 or 6 fathom, according as your ship goeth deepe, when as you will goe to anchor there, comming from the northwards, or about to the nordwards of the Island.

About a great league north from the east-end of Wranger, and two little leagues north and by west from little Wranger lyeth a little Island, which by some is called Kuy-
Kocx-wyke. ken, but commonly is called the Koecxschaer, which is a little bare rock with a Warder upon it, you may saile round about it on both sides, it lyeth from the Wolf n. e. and by east distant 2 great leagues.

From Wranger to Eckholme the course is east and by south 14 leagues.

Three leagues by west the Eckholms lyeth an out-point to the eastwards of it is a Bay, called the Monkwyke, there it is good anchoring for s. w. and west winds in 8, 10 or 12
Monk-wyke. fathom. Betwixt this point of the Monkwyke and Wranger lye three little long Islands, lying alongst the coast of Lysland, about a halfe league from the shoare which are very foule and rocky, and almost nothing but rocks, whereof you must take heed, otherwise the coast betwixt them both is cleane.

Eck-holm. The Island Eckholm is clean round about, & lyeth about n. w. and s. e. it sheweth it self high at both ends and in the middest with a Valley. Under Eckholm is good anchoring at the n. e. side for west and s. w. winds in 20, 22 and 25 fathom, and on the southwest side for easterly winde.

Tels-burgh. Five leagues to the eastwards of Eckholm lyeth the Castle Telsburgh, thwart of it lyeth of a shoale from the shoare, but you may sound it in 8 or 9 fathom. From thence the coast lyeth alongst most east and by south unto the road of the Narve about 15 leagues, it is altogether cleane without fowle ground, so that you may also sayl alongst there by night in 8 or 9 fathom without feare.

Northwards from this coast in the fareway betwixt Enck-holm and the Island of Highland lye the Chalck grounds, Hosts, the little and great Tutters, al of them with very dangerous foule grounds and shoales. Eckholm and Highland lye e. n. e. and w. s. w. distant about 10 leagues. About 2 or 3 leagues east from Eckholm, and also two leagues from the mayn land lye the Chalck grounds, which are foul grounds, almost 3 leagues long under water, and lye to the westwards w. n. w. into the Sea, and to the eastwards almost the riffe of the Hoftes. Some say that they are fast to it, so that you should not be able to sayle throug betwixt them. Chalk-gronds.

The Hoftes lyeth s. s. w. from High-land about five or fixe leagues, which is a long small Island foule round about, with two fowle riffes that lye out, the one lyeth of somewhat to the eastwards, and the other to the westwards unto the Chalck grounds. Hoftes.

Northwards from the Hoftes lye the little Tutters and two leagues to the eastwards of the little Tutters lye the great Tutters.

The little Tutters are two Islands not high but round about rocky, riffy, and fowle, they lye s. w. and south about 3 leagues from Highland. Little Tutters

The great Tutters lye from the little Tutters e. s. e. about 2 leagues, and from Higland south also 3 leagues there lyet off from it also great stony riffe westwards towards the little Tutters; there lyeth also betwixt the little and great Tutters a row of rockes, where of you must take heed when you wil sayle throug betwixt them. Greate Tutters

South and by east about two leagues from the great Tutters lyeth a shoale of five fathom. He that wil sayle to the southwards of these foresayd Islands and shoales towards the Narve, may be mindfull there of, it lyeth about four leagues to the eastwards of Tesburg: two or 3 leagues from the shoare. Shoale.

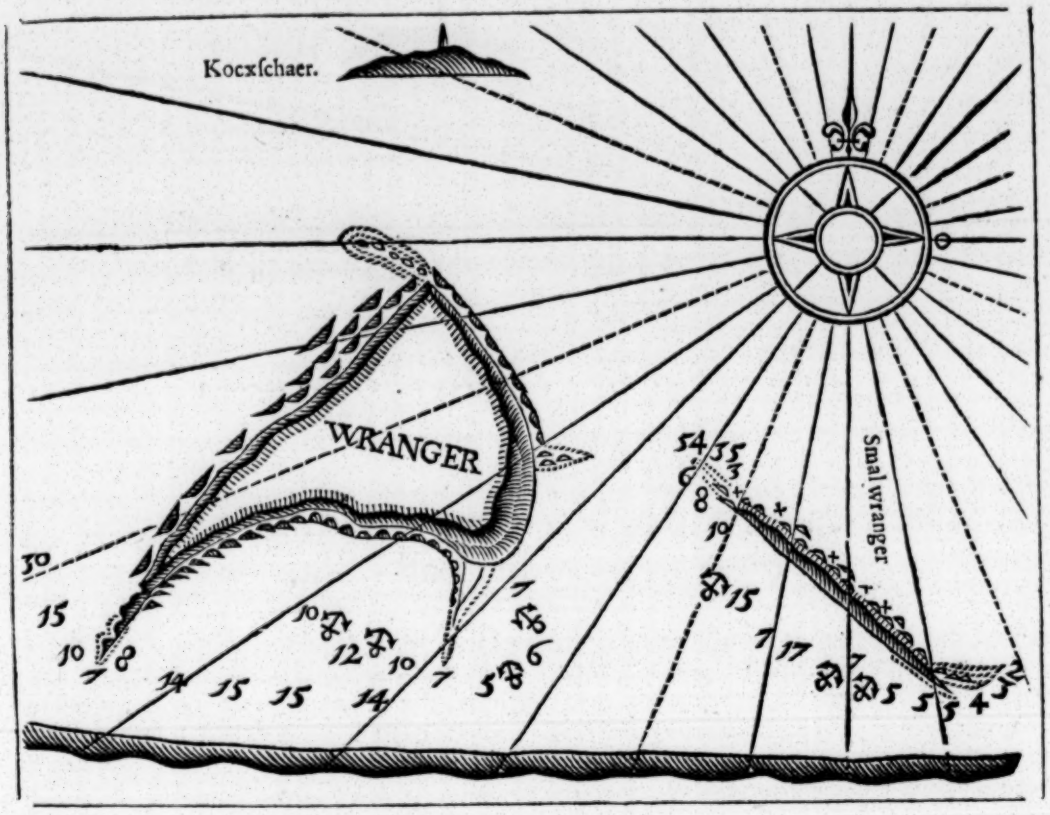
Betwixt the great Tutters and Highland lyeth a shoale upon which there is no more then 6 foot water.

Southeast a great halfe league from the south-end of Highland lyeth another shoale of a fathom and halfe and two fathom deep.

To the northwards of al these foresayd rocky Islands and fowle shoales, lyeth a little Island where upon standeth a Mast for to know it by, and to descerne it from the other little fowle Islands, that you may come indifferent near to it, but not to near, for it is also somewhat rocky and fowle, but not farre of, it lyeth from the little Tutters west and by north and west northwest about three leagues, from the Island Highland southwest & by west at least foure or five leagues, but from Wranger east somewhat southerly 18 or 19 leagues.

He that wil saile of from Wranger towards the Narve alongst to the northwardes of these foresayd grounds, and doth get sight of this little Island with the mast, may thereby the better know to direct his course, but it is not wisdome to sayle throug these foresayd shoales, except for them that are very well acquainted.

The Great and Small Wranger.



Higlant or Hoog landt.

THE Iſland Higland or Hoogland, is about 4 lea. long & a league broad, lying ſ. ſ. e. & n. n. w. When you come out of the weſt, it ariſeth in three Hommoks, ſo hig to ſee to as Coll in the Sea reach, upon the north-end & upon the eaſtſide it dot ſtand al ful of trees. A litle about the nord point on the eaſt-ſide is a little bay thwart of a Boers houſe, there it is clean ground and good lying for weſterly, ſ. weſt winds, ſomewhat to the ſouthwards of it, not very far from the ſhoare, lyeth a great rok above water. At the nord-end is alſo good lying for a ſ. eaſt wind. Alongſt the ſouthweſt-ſide you may alſo anchor every where in 16, 17 or 18 fatum cloſe by the land for eaſt and northeaſt wind.

From the ſ. w. ſide of Higland unto the road of the Narve the courſe is ſ. e. and ſ. e. and by ſouth about 15 leagues, & then you run throug betwixt the Higland and the Tutters.

Likewiſe when as you ſayle on n. w. from the Roade of the Narve, then you run alonghſt betwixt the Tutters and Highland, but you muſt be very carefull, and take heed off the foreſayd ſhoales, which ly betwixt them both.

The land of the Narve men do know by three high hills lyingh a league to the weſtwards or to the ſouthwards off the road, and a league further to the weſtwards ſtand ſome little houſes upon the high land.

The Narve.

The Towne of the Narve lyet upon a River about 2 leag. within the land. For to ſaile in there, men where wont to look out for a long hil, which lyeth on the ſouthſide within the river mouth, & at the eaſt-end goeth downe ſomewhat ſteep, with ſome hig trees to the eaſtwards of it, then they brougt the Wodden Tower of the Narve to the nordwards of the foreſaid trees, and did run in ſo with it. When as the eaſtermoſt of the three foreſayd hils (a league to the weſtwards of the Rivers mouth) come over a little Hommock, which lyeth on the water-ſide, then they where upon the barre of the Rivers mouth, there was upon the ſhoaleſt ten foot water, & then they ſailed up the river, that was wont for ſome years to be ſo, but it is poſſibly ſince that time more or leſſe altered like as it dat oftentimes happen in ſuch Rivers.

Ruſſe-haecks.

From the road of the Narve to the Ruſſehaeks, the courſe is nord & by w. 5 leag. which lye with many roks & good waies of from the ſhoare. The point thwart of it is called the point of Caſtrum after a litle two (ſo called) lying there.

Rette Sarre.

From the Ruſſe-haecks north, 5 leagues lyet a little Iſland called Rette Sarre, from which there runneth of a riff ſouth into Sea. From this Iſland to the Summers, the courſe is north and by weſt, weſterly 4 or 5 leagues.

Slimme gronds.

Eaſt ſ. e. and ſ. e. and by eaſt from Higland, and 3 leagues from the Ruſſe-haecks lyeth another ſhoale, called the Slimme grounds, it lyeth long and ſmall alongſt n. n. w. and ſ. ſ. e. with hard wind you may ſee it breck in four or five places: when it is weſt from you about halfe a league there it is 2 fathom deep, to 3, 4, 5 and 6 fathum uneven ground, ſome of the Rocks of it lye alſo above water.

From the Ruſſe-haecks to the Rode-hel, the courſe is n. e. and by north about 23 leagues, betwixt them both on the Ruſſe ſide runne alſo divers Rivers into the land, but there is no Trade. The land there lyeth in a great bigt, it lyeth firſt from the Ruſſe-haecks unto the River of Nioa or Oreſchaecke e. n. e. about 22 leagues, that parteth Ruſland from Finland by a great Meer or Water, called the Lading.

The Lading.

The ſtrong Caſtle of Noetenburg lysh there alſo upon a River, which lyeth of the Lyſlands or East-Sea into the foreſayd Lading. Further the land lyeth northweſt about 15 or 16 leagues unto the Rode-hell.

For to ſayle from Revell to Wyburgh.

From a little to the northwards of the Kocxſchaer to Higland, the courſe is eaſt & by north a litle more eaſterly 2 3 leagues, with that courſe you run alongſt a little to the northwards of it. You may ſayl about Higland on bot ſides, but alongſt to the nordwards of it is the rigt fareway for theſe that are bound to Wybroug. A halfe league nord & by weſt from Higland lyeth a ſuncken Rock under water. For to avoyd it you muſt ſayl cloſe alongſt by Highland. Further, the lying of Higland hath been deſcribed here before.

Summers.

From Highland to the Summers, the courſe is eaſt 7 leagues. Summers is a rock or little Iſland almoſt like the Eartholms, it ſheweth it ſelfe in 3 hommoks. A little to the eaſtwards of it lye ſome rocks a bove water: you may ſayle about on both ſides of Summers, & alſo throug betwixt Summers & the foreſayd roks that lye to the eaſtwards of it: But about to the northwards of it is the right fareway, you cannot alſo runne alongſt farre to the northwards of it, for a halfe league to the northwards of it, is vere fowle and full of little rocks, ſome above and ſome under water.

Goeſchaer of great Fiſhers.

From the Summers to the Goeſchaer, the courſe is northeaſt & by north more eaſterly 7 leagues. The Goeſchaer which by ſome is called the great Fiſher, is a long & broken Iſland of ſeven Rocks, therefore it is alſo called the Seven-rocks, it lyeth not far from the land, ſo that you cannot get ſight of it, before that you come nearer it ſheweth it ſelfs when you ſhall firſt ſee it, in foure Hommocks, as if were foure little low Iſlands, you muſt leave it lying a halfe league on the larboard ſide, for to avoid a ſuncken Rock which lyeth off from it ſouth ſoutheaſt a great ſhot of a caſt pece. When the water is not very ſmoot, but a little grown, you may perceive it by the breaking of the water: you may alſo wel ſayle to the northwards of this ſuncken rock, to witt, throug betwixt the ſuncken rock & the Goeſchaer, then you muſt run indifferent cloſe alongſt by Goeſchaer; when is n. w. and by north from you, then you are paſt the foreſayd ſuncken Rock, whether that you run alongſt to the northwards or to the ſoudwards of it. Northweſt and by north behind the greate Fiſher you may anchor in a good haven, betweene the Cliffes, where upon the ſouth Corne, of a Cliff there ſtand a warder, where in if you lye there you are free from al ycedrifs.

From the Goeſchaer or great Fiſher to the little Fiſher, the courſe is northeaſt and by eaſt 3 leagues. The little Fiſher is a bare round Rock which lyeth not farre from the land: when you come neere it, you may know it well from the other Rocks, becauſe there lye none farre from the

land

land alone, you may ſayle about it on both ſides, but alongſt to the ſouthwards of it the rigt fareway. About a ſhot of a caſt peece ſ. e. or ſ. e. and by eaſt from thit little Fiſher lyeth a blak rock, with the top even above water, almoſt like a buye upon the Flye-ſtreame, to ſee to a farre of, as if it where a Seales head. This rock you muſt leave on the ſtarboard ſide, & run throug betwixt & the Fiſher but there is a piece of it driven of with a ſtrong yce-drift, ſo that as many ſay, there is not much feare to be made of it.

He that muſt turn to windwards there abouts, let him not come very neer this rock, for men doe hold that there ly more rockes by it under water.

Both the Fiſhers are otherwiſe clean round about; ſo that you may alſo finde road under them.

ſines From the little Fiſher to the poynt Corſnes, which the Lubickers doe cal Kruyſoort, the courſe is e. n. e. ſomewhat eaſterly a league. Corſnes is a point going of low of the maine land, not very clean, which you muſt leave on the larboard ſide. To the weſtwards of Corſnes lye two litle Ilands cloſe to the land. Thwart of the point lyeth a rock almoſt like a Boat, you may runne about it four fatum & a halfe, but not neare. On the eaſt ſide of that point you may anchor for weſterly winds in 5 or 6 fathom.

About two leagues thwart of from Corſnes, lye very many rocks, ſome one fatum, ſome a halfe fatum, ſome more, and ſome leſſe under water, you may not goe out of the fareway without great feare and danger. It is impoſſible to deſcribe al the uneven grounds, the great multitude of rocks and rocky ſhoales which are lying there abouts.

ſtade. From Corſnes to the Iſland Rodehel, the courſe is n. e. and by eaſt about 3 leagues. Rodehel is a great roug Iſland with a ſaddle in the middeſt, which you muſt leave lying on the ſtarboard ſide. The north point is a red point, there ſtand up long Staves over end, like unto a Warder in Norway, you muſt goe cloſe alongſt by them; or you may runne in amidſt the Channell, according as ſhal be beſt convenient, but you may not goe cloſe by the nord point over againſt it (which the Dutch ſhippes doe call Jan Lambertſons point) becauſe of a ſtony & ſteepe little Riff which lyeth off from it, but you may run about by it upon your lead in 7 or 8 fatum, but may come no neerer; the rigt fareway betwixt them both is 14 or 15 fathom deep.

Betwixt the point of Corſnes & the Rodehel, it is not without danger to turn to windewards, eſpecially you muſt be very careful not to run to far over to the ſouthwards, but to the northwards, towards the maine land it is indifferent cleane: It is there in the fareway 16 fathom deepe, ſoft Clay-ground.

For not to miſſe this foreſaid Channel, or the north point of the Rodehel, then take the mark out a ſtearne of the little Fiſher, bring that even without the point of Corſnes, & keep it ſo ſtanding ſailing towards the Rodehel, & ſo you ſhal not ſaile to fal rigt before the channel. This is a ſure mark where upon you may truſt. If you fal ſomewhat to the ſouthwards of the foreſaid channel, you can ſee opening, but ſeemeth to be al whole to the maine land, ſo that men (that are not wel acquainted) migt not know where to ſeek the channell, but ſailing to the northwards the channell doth open it ſelf.

When as you ſhal be then within the foreſaid point of Rodehel, you may anchor there where you pleaſe, and fetch a Pilot from the land, which may bring you up to the Towne Wybroug. It is there within 15 fathom deep, and good ſoft Clay ground.

If you wil (being come within the Rodehel) ſaile up to Wybroug, then goe on eaſt & by ſouth a ſhou of a caſt peece unto a black point, leave that about two cables lengts on the larboard ſide, for there it is not cleane. Being a little paſt this black point, then go on n. e. or e. n. e. a halfe league, & then you ſhal come againſt a great white ſand bay, but before you come by this ſand bay, you ſhal meet a rock with a gray ſtone like a buye upon the Flye ſtream, leave that foreſaid rock on the ſtarboard ſide, and the gray ſtone on the larboard ſide, and run amidſt the channell throug betwixt them both, there it is 3 fathom deep. It is in no wiſe to bee done to ſayle up there for him that hath not been there before, but it is beſt to anchor a little within Rodehel and to let him be brougt up by a Pilot.

The Coaſt of Finland betwixt Elſenvos and Wybrough.

The channel of Elſenvos lyeth from Nargen or the Wolf n. e. & by nord & ſ. w. & by ſouth about 17 leagues, & from Wranger ſouth & north

Upon the weſt ſide of the channell lyeth a hig round Rock, where upon ſtandeth a maſt, or Warder, called Kubben, over againſt upon the other ſide of the channell lyeth a long rocke or Iſland called Sautum, & halfe league to the eaſtwards of Kubben lyeth another great round rok called Mely. Theſe three Rockes are the beſt markes to be known of this foreſaid channell.

Betwixt Kubben & Sautum lyeth that channell in from thence n. e. until that you be within the Rockes, and then n. n. e. and north and by eaſt, until you come before the River of Elſenvos, there you may anchor betwixt the Rockes in good anchor ground.

There runnet alſo a lyeth throng within the Rockes, where you may ſaile alongſt, and come out againe into the Sea by Putsfagre, this runneth about very crooked with many Bigts, but it is Pilots water.

If you wil ſaile to Borgo, then runne a league to the eaſt wards of the foreſaid rock Mely, there you ſhal finde two hig bare rockes, called the Tolken, runne in betwixt them bot, but neereſt to the eaſtermoſt, which is cleane & cleare cloſe to it, & lyeth ſomewhat further to Seawards then the weſtermoſt. Weſt n. w. from this eaſtermoſt hig rocke, lyeth a little rocke above water, leave that on the larboard ſide. When as then you ſhal be by this eaſtermoſt rock, which you leave lying on the ſtarboard ſide of you, then goe on n. n. e. to Schoeland, that is a roug Iſland off from which lye many bare points, al which you muſt leave (with the Iſland alſo) on the ſtarboard ſide, then runne alongſt cloſe by theſe bare points. When you are paſt them, goe then n. e. & by nord, ſomewhat eaſterly, & ſo you ſhal ſe two other bare rockes, the eaſtermoſt of the greateneſſe of a ſhip very ſteepe & hig, but the weſtermoſt is ſmal, run in there betwixt them: the Sound is called Cramer poort. When you are within them, goe then in north and by eaſt, and then you ſhal preſently meet with a great Iſland called Cramer, leave that on the ſtarboard ſide, & ſo you runne rigt on with an other greate Iſland, called the Heſter, leave that on the larboard ſide, & ankor betwixt the two Iſland Cramer & the Heſter, there is good anchor ground. Borgo. Cramer Poort. Cramer

From the mouth of the Sound of Elſenvos to Peltingſound, the courſe is e. ſ. e. 13 or 14 leagues. Peltingſound lyeth in n. e. there you lye within a great many Rockes, or little Iſlands, ſheltred for all winds. You may ſaile from thence through within the Rocks all over where you deſire to be, if you have a good Skilfull Pilot. Peltingſound.

From Peltingſchares to Putsfagre it is 18 leagues. Putsfagre is a great Rock, or Iſland, lying from Higland n. n. w. diſtant 5 or 6 leagues. About a league ſouth from this Iſland Putsfagre lyeth a ſuncken Rock, which you muſt avoid. He that will ſaile throug within the Roks, let him take a Pilot from Putsfagre, that may being him throug the Rockes where hee deſireth to be: you may run in there every where, and within the Rockes it is moſt all over good anchor-ground. Putsfagre.

From Putsfagre to the Epelſchares, the courſe is eaſt 6 leagues: theſe are a great many Out rocks, a little to the eaſtwards of them lyeth a great Rock called Quadeſchare which you may ſayle round about. Epelſchares.

From Epelſcharen to the Goeſchare, the courſe is eaſt ſomewhat northerly 9 or 10 leagues. That, and the lying of the land, and dangers from thence eaſtward, hath beene deſcribed here before. Goeſchare.

How theſe Lands doe lye one from the other, and from the other Lands.

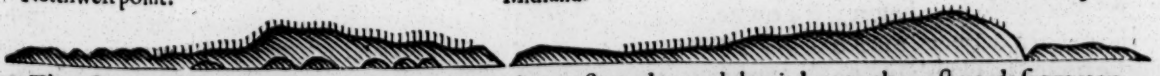
From the Wolf to the Kocxſchaer eaſt and by north	3 leagues
From Wolf to the Peltingſchares e. n. e.	20 leagues
From Wolf to Wranger eaſt and by ſouth	3 leagues
From the Kocxſchaer to the eaſt end of Wranger, ſouth & by eaſt	1 league
From Kocxſchaer to little Wranger ſ. ſ. e.	2 leagues
From Wranger to Eckholm, eaſt and by ſouth	14 leagues
From Eckholm to the Caſtle of Telsburg e. ſ. e.	5 leagues
From Telsburg to the Roade of the Narve, e. ſ. e.	15 leagues
From the road of the Narve to the Ruſſe-haecks n. & by w.	5 leagues
From the Ruſſe haecks to the river Nioa or Oreſchack, e. n. e.	22 leagues
From Oreſchack to the Rodehel, n. w.	15 or 16 leagues
From Rodehel to Schares Terny ſ. e.	10 leagues
From the Ruſſehaecks to the Rodehel n. e. & by north	23 leagues
From Ruſſehaecks to the Iſland Rette Sarre north	5 leagues
From Rette Sarre to Sommers, n. & by w. ſomewhat weſterly	4 or 5 lea.
From Eckholm to the Iſland Highland, e. n. e.	10 leagues
From the weſt ſide of Highland to the road of the Narve ſ. e. and ſouth and ſoutheaſt	15 leagues
From Highland to the little Tutters ſ. w. & by ſouth	3 leagues
From Highland to the great Tutters ſouth	3 leagues
From the Iſland with the Maſt to the little Tutters, eaſt and by ſouth and eaſt ſoutheaſt	3 leagues
From the Kocxſchaer to the Iſland with the Maſt, e. & by ſ.	18 or 19 lea.
From the Iſland with the Maſt to the Higland n.e. & by eaſt	4 or 5 leagues
From the Kocxſchaer to the Highland eaſt	23 leagues
From Highland to the Sommers eaſt	7 leagues
From the Sommers to the Goeſchaer or Great Fiſher, n. e. and by north ſomewhat eaſterly	7 leagues
From the great Fiſher to the little Fiſher n. e. and by eaſt	3 leagues
From the little Fiſher to the Corſnes n. e. ſomewhat eaſterly	1 league
From Corſnes to the Rodehel n. e. and by eaſt	3 leagues
From the ſound of Elſenvos to Peltingſound e. ſ. e.	13 or 14 leagues
From Peltingſound to Putsfagre eaſt	8 leagues
From Putsfagre to the Epelſchaers, eaſt	6 leagues
From the Epelſchaers to the Goeſchaer of great Fiſher, eaſt ſomewhat northerly	9 or 10 leagues
From Eckholm to Elſenvos n. w. & by n. ſomewhat weſterly	23 leagues
From Highland to Peltingſchares n. w. and by weſt	9 leagues
From Highland to Putsfagre n. n. w.	5 or 6 leagues

How theſe Lands doe ſhew them ſelves at Sea.



Thus Iſland Wranger ſheweth thus, when it is ſ. e. & by eaſt 3 leagues from you.

Northweſt point. Midland. Southeaſt point.

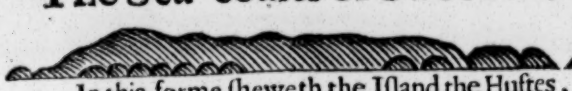


Thus ſhew Eckholm, when you come from the weſtwards, and that it lyet to the eaſtwards from you.

Southeaſt point. Northweſt point.



Thus ſheweth Eckholm, when you come from the weſtwards, and that is to the weſtwards from you.



In this forme ſheweth the Iſland the Huſtes, when you are to the ſouthwards of it, & ſayle alongſt by the coaſt of Lyfland.



The little Tutters ſheweth themſelves thus when they lye to the northwards from you.



Thus ſheweth the great Tutters, when you ſayle alongſt by the coaſt of Lyfland, & that they lye to the northwards from you.



In this forme ſheweth the land to the eaſtwards of the Narve, when you come off from the Highland.



Thus ſheweth the land to the eaſtwards of the Rivers mouth of the Narve, when you come there abouts, commingh off from the High land.



Thus ſheweth the Iſland Highland, when you ſee it comming from the weſtwards.

The fiſt Demonſtration,

Where in are ſeth forth

The Coaſtes of Sweeden, betweene Oeland and Stockholm.

Borck-holm. Coping wyke.

ABout two leagues more northerly over againſt it, on Oeland lyeth Borck-holm, a little to the northwards of it lyeth Coping-wyke, where men do lade many Toomb-ſtoones and other ſtones, a northerly winde it is bad lyingh there.

Northweſt or ſomewhat weſterly from Borck-holm, about 3 leagues on the Sweeds-ſide, lyeth a Haven in the Rockes, where men do lade Beames, to the northwards of it northweſt and north from Borck-holm lyeth Munſteraars that is a good Haven alſo for very great ſhips.

Munſteraars

Sweeds Joufer.

From Calmer to the Sweeds Joufer, the courſe is n. n. e. 9 or 10 leagues, this is a round Rock, & very high, you may ſee it alongſt over Oeland, being a good wayes to the eaſtwards of Oeland; it is not very great, but cleane round about, ſo that you may anchor neare under it on very ſide in 18 & 19 fathom, but by reaſon that is not broad, there commeth in (with hard windes) a rowling Sea.

From the Sweeds Joufer to the channell of Weſterwyke or Silbuy, the courſe is n. n. w. 7 leagues, but from Northeroorden the north-end of Oeland n. w. 8 leagues.

Ide-ſound.

The channell of Weſterwyke and Silbuy is called Ide-ſound, after a great Rock lyingh on the north-ſide of this channell, called Ydehoe, off from it lye many rocks, ſome above and ſome under water 2 great leagues to Seawards, which are called Ide-bancks.

Ide-bancks.

He that wil ſaile from the north-end of Oeland towards the barſound, and by bare winds doth come little to the weſtwards, without the rigt fareway, muſt be very careful, and take good heed that he get not in amongſt them.

For to know the channel of Weſterwyke, you ſhal ſee a hig bare Rock, bring that n. w. from you, and ſayle ſo rigt in with it, & then you ſhal fal with the land rigt before it, & then alſo you ſhal eſpye another bare Rocke, where upon ſtandeth a Fiſhers beakon, & alſo another to the ſoudwards of it, with a maſt, ſaile in betwixt the two Rocks, the channel lyeth in n. w. & n. w. and by north when you are come within them you may ſaile alongſt throug the Rocks where you deſire to be, to Silbuy, Strixholm, Flourbuy, Vrouwenbergh, Weſterwyke, up to the northwards to Schelſuyr & other places more, there it is al cleane ground and 12, 15, 18 and 20 fathom deep.

Silbuy.

If you be bound to Silbuy, then ſayle up to the nordwards or eaſtwards until you come before the Towne, and anchor there in the middeſt between the Roks in 7, 8 & 9 fatum.

Flour-buy.

If you be bound to Flourbuy, or Vrouwenbergh, then ſaile in weſt, & weſt & by north throug the Rocks till you come againſt the maine land, there you may anchor before Flourbuy, or ſaile up n. w. betwixt the Iſland of Vrouwenberg and the maine laed, & anchor there in 12 fathum, alſo you may run through that way until you come to Weſterwyke. Weſterwyke lyeth from Silbuy throug within the Rock weſt, & weſt and by north, there it is in the fareway 15 and 16 fathom deep.

From Silbuy to Schelſuyr it is north and by weſt 7 leagues, al alongſt throug within the Rocks. Schelſuyr is a good haven, there lyeth a rock in the Haven mouth, about which you may run in on both ſide, and anchor before the Towne.

To the eaſtwards of Schelſuyr lyeth the Hondtsbay and the Green Iſland, there it is alſo good anchoring. You may run from Silbuy alongſt by it until you come in the ſound of Southercoppen and Northercoppen.

From the channel of Weſterwyke to the Barſound, the coaſt lyeth alongſt by the Roks north & by eaſt 9 leagues. But from the north-end of Oeland to the Barſund the courſe is north & by weſt 15 leagues, go not more weſterly, that you get not in to the ſuncken Roks and foul ground of the Ide bancks.

The north-end of Oeland runneth ſomewhat far of flat. If you run out cloſe by Oeland, & ſaile on north & by weſt, then you runne alongſt farre enoug without the Ide banks, & ſo ſhal fal with the land about a halfe league to the ſoudwards of Barſound againſt a deal of low out Rocks. It ſeemeth a far off, by reaſon of the multitude of Rocks & little Iſlands to be al firme land, but comming near it, it is al broken. You ſhal ſee there alſo an Iſland by which there ſeemeth to be a channel, but you muſt be further to the northwards, run alongſt by the coaſt in 7 fathom, ſo long until that you ſee out a head an hig out-rock, theſe ſhal be the Heerſcharen, which are very foule, & lye off from the nord-point of the channel, a good wayes e. ſ. e. into Sea, all which you muſt leave on the ſtarboard-ſide and run alongſt by them unto the channell.

When as you come out of the Sea, you muſt take very greate heed that you fal not with the land to the northwards of the channel, that you do not run into the foreſaid Heerſchare. When you come before the channel you ſhal ſee two Sound or going in, the ſouthermoſt ſeemeth to be the broadeſt and faireſt, but the northermoſt is farre the beſt, & lyeth in n. n. w.

On the north-ſide of the channel lyeth a gaeat rock with a beakon upon it, and ſomewhat more to the northwards ſheweth a round-hil, by all which marckes this channell is very eaſy to be know, when you are right before the norther channell, and do ſee upon into it, then ſayle in northweſt; being come in about a ſhot of caſt peece, you ſhal ſee on the larboard-ſide two little low Iſlands, anchor within them in 17 or 18 fathom, there you muſt hire

Suyder Coppen
Stuxborgh
Schelsuyr
Westerwyc
I. Vromansberg
Elsier huys
Stockholm
Silbuy
Walmerwyck
I. de Hancken
gat van Westerwyck
Mansers
Sweetsche Lonsser
Schuckmes
de Backer
Noorderzoorden
Borcholm
Loysingswyck
ÖLAND
Groote Karel
Cleyne Karel
Reefsholm
Baken een mast
Westbroeck
Westergwyck
Visbuy
Bosyrck
Moubursch
GOTLA
Heylicholm
Narwyck
Sandwyck
Galy

Caarte van

SWEDEN

Van Oelandt tot aen Stocholm;

't Amsterdam,

By Iacob Theunisz. op 't water in de Loots man.

Stocholm

Nycoppen

Hasselholm

Willem van de Werks kerck

Lustholm

Roedholm

Iroſa

Marstrant

Hernhamer

Kamlsoor

Ramlshoft

Carlsten

Hantsicker gat

Stockholm

Stegenes

Winstroom

Copersteen

Sletthaven

Salsoyreyn

Fero

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Engelſche Fransmylen 20 in een graet

32

Op Iurmo wonen vier hoe-
ren, ghy crycht hier wel
om Lootsman.

IVRMO

Hier liggen visschers van Paesschen
tot Emse Lansche Ermis

VTTOY

Dit riff schiet wel twee mylen in zee
en ontrent desen hoeck ontvalt het land
oostwaert

Graeuwe sandt

Caarte van 't gat
van
ABBO ofte VTTOY
't Amsterdam
By Iacob Theuniſz opt wa-
ter inde Lootsman.

Dit syn de Mishoopen en
de syn seer perijckel

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche Fra. mylen 20 in een graet

Caarte
van
STOCHOLMSE
Liet.

Stocholm

Tanssholm

Raedholm

Alvsholm

Alvsterrack

Seuge

Sleggyrnes

Buy van Duc haven

Dit heen vaerdom na de Noord kolm

Bere haven

Drayhavyn

Brugs haven

Kochaven

Koehaven

De Lerstack

Clapmuts

Eyl. Steenkun

Soutsack

Groote daker

Daler

Raedholm

Roodholm

Hoogc landt van Elfnas

Elfnas

Rookar

Ulvsholm

Schaeropen

Gombaricksteen

Lange Carwasen

Carwasen

Duytsche mylen 15 in een graet

Sweensche mylen 17½ in een graet

Eng.en Fra. mylen 20 in een graet

32

hire Pilot to bring you up, either to Soutercoppen, or Nortercoppen, where you desire to be, it is Pilots water. It is from tence to Soutercoppen, about 10 leagues, but to Nortercoppen 18 leagues. In the comming in of the Sound is a good ankor ground in 10 fathom. Within in the Sound it is broad & wide, & al over good anchoring in 18 & 20 fathum.

Talder sound. About an Englisch mile within the Sound, you leave (in sailing up) the Talder sound on the larboard-side, there is no more then 6 or 7 foot water, from thence you edge up nort & also n. e. a halfe league, then again west & by south about two leagues, afterwards w. n. w. a league unto Karholm, which is a Gentelmans house with a Mil.

Stickbrough. From Karholm to Stickbroug is further west about two leagues, that is a castle upon a little Island, you must go about to the soutwards of it throug a bridge.

From Stickbroug sayle up alongst the Sound, and leave most of all the Rocks (which you see) on the larboard-side, except one or two a little above Stikbroug, leave them on the starboard side. About 2 leagues past Stickbrough standeth a Gentelmanshouse called Mem, there is the place where men do lade, a halfleague from Southercopping.

For to sayle from without the Northercopping, you run in by the Swartbodem up westwards unto Schenes & Braburgh, & alongst unto the Brawyck the sound of Northcopping, or else you must come in at the Brasound throug within the Rocks into the Brawyke unto Northercopping, but it is not to be done without a Pilot for them that are not there very wel acquainted, for it is Pilots water.

Heveringh. From the north end of Oeland to the channel Nycopping by the Heveringh, the course is due north about 18 or 19 leagues, but if you run close alongst by the end off Oeland, you shall fall with the land a little to the westwards of the Hevering. The Hevering is a great reddish bare Rock, whereupon stand 3 or 4 Fishers beacons, here to fore there was wont to stand upon it a barrel upon a mast, which men migt see far of at Sea, but it is taken off in the last wart between the Kings of Sweden & Denmark, now there standeth nothing upon it but some Warders.

Two great leagues to the eastwards of the Hevering, to witt, s. w. from it, lye the foresaid roks called the Swartboden, which are great roks, & are sometimes mistaken for the Hevering you must saile in also by these Swartboden, & run throug within Oxelen & the other rocks; & come by the point of Hommelwyke in to the rigt Sound of Nycoppen.

When you come before the channell of the Heveringh you can at first hardly see a channell, or any opening, but bring the great Rock the Hevering n.w. from you and saile so rigt in, and run in close alongst to the northwards of it. In the sailing in you shall see two channells, the northermost is within ful of dangers, so that you cannot go throug there. The rigt channell by the Hevering is so narrow, that you can hardly turne to and again there.

From the Hevering you must saile in first n. w. a league & half, or two leagues, unto a great Rock, leave it on the starboard side, & saile about by it, & goe in alongst n. w. & by north. A little within the foresaid great Rock, thwart of the point of the Hommelwyke, you shal finde also a great rock on the starboard-side, you may run about to the westwards of it untill you come within the other rocks & little Islands, & anchor there in 3 fathom soft ground: but if you wil anchor there, then you must shun somewhat the west-end of the great Holm, because of a suncken rock that lyeth even without the point of the Rock. From that forcsaid road unto Hasselholm the course is yet in alongst n. w. and north, but with ships of great draugt you must anchor before the channell of Hasselholm. From the Hevering to the Hasselholm it is in about 3 or 4 leagues.

From Hasselholm alongst upwards throug the stonereach, it is not deeper then 9 foote, you must also (if you wil saile up there) first set the Rockes, or sunken Rockes with beakons with your Boat, or else you should sometimes saile upon some of the Rockes in 7 foot depth.

The narrowest of the Stone-reach is thwart of a Island which you must leave on the starboard side, of from which lyeth a suncken rocke in the narrow, you must goe close alongst by the sunken rok, for to the westwards of it is very shoale water. Being past this stony ground, you shal get oasie ground, where it is not deeper then 6 foot; being come over that by the Town Nycopping, it is again 8 foot deep, but stony ground. The ships lye without the Towne thwart of the beakons over against the Castle, which lyeth on the west-side of the River. Nycopping.

From Hasselholm to the Town Nycopping it is about a league first up north & by west & afterwards west. For one that is unacquainted, it is not easy to saile up, it is also Pilots water, so soone as you come within the channel, you can get a Pilot to bring you where you desire to be.

From Nycopping you may saile alongst throug the rocks to northwards of Hasselholm unto Trosa and Telgen.

Landsoort (which is the west-point of the Liet of Stokkolm) lyeth from the Hevering east and by north distant 6 or 7 leagues. Landsoort,

About halfe wayes betwixt both lyeth a great hig Rock very easy to beknowne, a good wayes without the land alone, called Hartsoe, and a little league to the westwards of Landsoort lye also some fowle Out-roks, called the Heirhamer. When as you sail from the Hevering on e. n. e. then you run alongst a little without the Hartsoe, leaving it on the larboard side. With that course, you cannot also saile to neere the Heyr-hamer, and then you leave it lying also on the larboard side towards the land. Hartsoe. Heyrhamer.

The land to the westwardes of Landsoort lyeth w. or w. & by n. with divers great Rockes & havens where you may saile into. About a league to the westwards of it lyeth a haven within a low rock in betwixt two other low rocks, there you must make you fast with cables on both shoares, & with an anchor in the Sound. Before the havens mouth lyeth a hig round Rock, which shutteth the havens mouth.

A little to the westwards of Hartsoe goeth in a Haven or Deep, where you may run throug with Barkes within Elspan unto Stockholm.

A little to the westwards of that Deep lyeth the Sound of Telgen lying in n. w. almost unto the great Lak de Mell, upon the end of that Sound lyeth Telgen, but at the mouth of the Sound lyeth a little Towne Trosa.

About an Englisch mile s. w. from the point of Landsoort, lye two Rockes even with the water, and within these Rockes close by Landsoort lyeth also a suncken rock. He that commeth from the southwards, being bound to Stokholm, and falleth with the land to the westwards of the point of Landsoort, must take heed of them; you may saile within these two Rockes (lying even with the water) to witt, betwixt them and the foresayd suncken Rock, and also (as Pilots say) you may saile throug within the suncken Rock, that is, betwixt the suncken Rock and the maine land.

Landsoort & the nord point of Oeland lye s. s. w. & n.n.e. a little more northerly, & a little more southerly distant 23 or 24 leagues. If you saile on n. n. e. from the nord-end of Oeland, you shal fal with the land rigt with Landsoort, or a little to the westwards of it. It is better to fal with the land somewhat to the westwards of it, then to the eastwards of it, to the westwards the land is better to beknown then the roks to the eastwards of it. Therefore when as you wil sayle from north end of Oeland to Stockholm, especially in dark weather, goe on somewhat more northerly then n. n. e. or north and by east then you shal runne in sigt of the foresaid Rock Hartsoe, which is easy to be knowne.

The Liet of Stockholm goeth in n. e. by the point of Landsoort. About a league east from the point ly some black Rocks, some above and some under water, called the Karwasen. Betwixt then and the poynt, about once so neare the Karwasen, as the poynt, lyeth an other black Rock, not great, calle the young Karwasen, betwixt that Rock and the point of Landsoort, men doe sayle into the Channel of Stockholm. Close to the point lyeth also a little Island which you must leave on the larboard-side, and run alongst to the eastwards of it, a league n. e. from the point lyeth the Wighstone, lying s. e. or e. s. e. thwart of from the shoare. This is somewhat a long Rock with three Hommocks, the westermost are the greateast, and shew like a saddle, the eastermost hommock is the smalleast, upon it standeth a little walled cape, you must sayle alongst to the eastwards of it, and leave the rock on the larboard-side. You may well sayle also about to the westwards of Wigstone.

this Wighstone, it is cleane round about, but on the west-side it is narrowest betwixt it and the land lyeth also a Rock, with a little rock of from it, which you must avoyd.

Middle stone. A league n.e. from the Wigstone lyeth the middlestone, which is a great high Rock with a great cliff or saddle with another great rock a little to the westwards of it: you cannot saile throug betwixt them, they are fast one to the other with Rocks. In saylingh up men leave this Middlest one on the starboard side, and run about to the westwards of it.

From by east the Wigstone to the Middlestone, to witt, alongst to the westwards of it, the course is n. n. e. About a great Englisch mile east from the Wigstone, & north from the Karwasen lyeth another Rock, called the Gombergh-stone, & to the eastwards of it another, called Schaer-open. When you sayle from the Wigstone to the Middle-stone, you leave them both on the starboard side.

Gombergh-stone.

Rams-kloof. Thwart of the Middle-stone, on the Welstand lyeth the haven of Ramskloof, there you may anchor within the Rocks. The Middlestone lyeth about a halfleague south-west from the east-poynt of the Lieth, to witt, from the east-poynt of the mayn land, or the Swedes Schares, betwixt them both goeth in a channell, called the Danske-channell. For to sayle in there you must avoyd the foresayd east-poynt a good wayes of (whereupon standeth a mill) & run in by the Middle stone, for from that poynt runneth of a great ledge of rocks a good wayes to Seawards, towards the Middlestone. From by west the Middlestone to Elsnap, the course is north east 3 leagues.

Danske channel

Red-Cow. When you are little past the middlestone, you come in betwixt the two lands, and a little within the east-poynt you shall meet with a rock in the fareway, called the Red-Cow. You may sayle about it on both sides, but men leave it commonly on the starboard side, within that rock, that is on the nort-side you may anchor.

Elsnap. Elsnap is a haven behinde two little Islands, where the Kings-ships off wart do commonly lye to tarry for a winde, when they are bound to Sea, there it is very easy lying, when with contrary windes you can neyther get up nor down, you can come in & out there both from the northwards & from the soutwards very conveniently. Comming from the soudwards, you can see over the southermost little Island, the mast of the ships that lye behind it. For to sayle in there behind it, run in about by the south-poynt of the Island Elsnap behind it, & then you leave a little black Rock on the south-side of the havensmouth, lying on the larboard side. Betwixt the two litle Islands of Elsnap runnes also a channell throug where you may go throug with Huyes and small ships. From twart of Elsnap, the course is inwards n.n. e. about 2 leagues, to the Redholm, that is a great Red round Rock grown full of trees, to the westwards off it lyeth another smaller bare rock, the fareway is there in throug betwixt them, & about a musket shot broad in this narrow it is all over good anchor ground. From the northend of the Redholm lyeth of a great row off Rocks unto the east-shoare of the Liet, where you must sayle throug. When as you sayle throug betwixt the Redholm & the foresayd bare Rock to the eastwards of it, go then on yet about an Englisch mile further n. n. e. untill you come thwart of the south channell, counting from the Red-holm which lyeth throug the foresayd row of Rockes to the northwards of the Red-holm, that is called S. Johns channell, it lyeth through about north-northwest or somewhat more northerly, it is a short Inlet, run through there.

Red-holm.

S. Johns channel Being throug S. Johns channell, goe again north-northeast about an Englisch mile to the Red-holm, which is a longh Rock, upon it stand three barrels upon masts, this you must leave on the larboard side, and run alongst to the eastwards of it. From the north-poynt of that Red-holm runneth of a little Riffe or shoale, which you must avoyd. From the Red-holm unto the great Daler, the course is northwest and by north, that is a haven on the west-side of the Lieth, there lyeth a Churchyard within on the land, where the slain Poles people in the last Polisch wars lye buryed. Thwart of that Churchyard is a Sandbay, there is good anchor ground, like as is all over in that foresayd haven. At the north-poynt of the haven the great Daler lyeth a suncken Rok close by the land, called the Saltsack, upon which is no more then 9 foot water. From the great Daler, the course is alongst northeast a half league unto the little Daler, which is a high steep Rok, the highest that you find amongst all the Rocks in the Liet, run alongh st to the westwards of it, & leave it on the starboard side, Over against it on the westside lyeth another Rock, which is called also the Daler, to the westwards of it, to witt, betwixt that Rock & the mayn land is also an opening, where you may sayl throug. A litle within that foresayd Rock on the west-land goeth in the Hartstick which is a Sound that lyeth in first west, & west by north a good wayes in & then northwest & commeth into the Liet to the northwards of Waxholm, by Kings-haven. The Kings Majesty hath caused to sinck some ships in the mouth of the Sound, so that men cannot goe through there with great ships, but onely with little barcks. From the little Daler, the course is n. n. w. about 2 half league to Steendeur, a great Island, which you must leave on the starboard side, and run close alongh st by it, and so you shall leave a round rock to the southwards against it on the larboard side, & sayle through betwixt them: this channell lyeth throug northwest. At the west-end of the great Island Steendeur lyeth a little black Rock, you must run about by it again to the eastwards.

Great Dale.

Saltsak.

Little Daler.

Hart-stick.

Steen-deur

From Steendeur to Kow-haven, the course is east north-east 2 leagues, that is a rock lying in the broad Sound, leave it on the starboard side, and sayl to the westwards of it alongh st by the west-land unto Berck-haven. Betwixt both about half wayes lyeth a haven, called the Crosse-haven, there it is good lying for west and northwest winds.

Kow-haven

Berckhaven lyeth from Cow-haven n. e. & by north distant about 2 leagues: this is a haven betwixt two Islands where is good anchoringh for all winds, as well for them which come from Stockholm, and desire to sayle to the Northbodem, as also for them that will sayle off towards Landsoort, there is (like as at most places betwixt the roks and Islands) good clay-ground. When you come from Kow-haven, and are bound to Stockholm, you must leave these two Islands of Berckhaven on the starboard side, and run in about betwixt them & the poynt of the mayne land. From the narrow betwixt Berkhaven & thd foresayd poynt to Duerhaven, the course is northwest about a halfe league. On the southwest-side of that fareway thwart of the poynt over against Duerhaven, lye two suncken Rocks on each side of the poynt one, the one on the northwest side, & the other on the southeast side, commonly there standeth upon each of them a little Tree for a beakon.

Berck-haven

From the poynt of Duerhaven unto the Draybome, the course is southwest and by west somewhat westerly about a halfe league, it is called also the Duerhaven, of from the poynt with in the Islands untill you come before the buye, alongh st there, and also within the Islands, it is good lying every where.

The little Islands which lye in the channell of the Draybome, you must leave them on the starboard side of you.

From the Draybome to the Windstream, the course is first north, & north & by west untill about halfe wayes, there you shall find a little Island with a little Tree, leave that on the larboard side, and goe from thence in north northwest to the Windstream. In the Windstream is a good anchoringh by the shoare, except in the north end of the stream, there is no anchor ground. From the Draybome to the Windstream it is a league distance.

From the Windstreame to the Seugh, the course is west-northwest a half league, that is a chindle or Stonebanck even with the water, runne alongh st to the northwards off it, and leave it on the larboard.

From the Seugh to Scheggen, the course is west and by north a league, run alongst there by the south shoare. When you come against Scheggen, you shall see upon the poynt of the south-shoare a litle round Tree, over against that litle Tree somewhat more northerly then in the middle of the channell, lyeth a suncken rock, for to avoyt it you most run neareast the south-shoare. The reach off Scheggen lyeth throug west, & west and by south about an Englisch mile, it is narrow, buth hath every where anchor ground.

From Scheggen, the course is west s. w. an Englisch mile to Steckfound, or west to Kings-deep, the little Island on the starboard side, as you sayle to Steckfound, are cleane round about, so that you may goe on alsides about by them-

Com-

Comming cloſe to Steck-ſound you ſhall finde a ſunken rocke a little by ſouth the fareway. The Steck-ſound lyeth throug ſ. ſ. w. it is a ſhort Inlet about a cables length long.

From Steck ſound unto Waxholm it is ſ. w. weſterly above an Engliſh mile. Upon Waxholm ſtandet the Kings Caſtle, there all the ſhips are viſited whether they go up or down, the channell there by it is paled to ſo neare, that they can ſhut it wih a barre.

From Waxholm to the Weſter reach, the courſe is w. ſ. w. and through the Weſter reach ſ. w. From thence alongſt weſt to Eeldam, that is a very narrow channell a little more then a ſhips lengt broad.

From Eeldam, the courſe is weſt to Mouſcholm, which is about a league from Waxholm, men leave the high rough Mouſeholm on the ſtarboard ſide, and run alongſt by it to the ſouthwards.

From the Mouſeholm to Kingſhaven it is a league weſt & weſt & by north all alongſt by the ſouthland.

From Kingſhaven unto the town Stokholme, the courſe is n. w. and n. w. & by weſt alſo a league diſtance along by the ſhoare. When you come before the Towne, you may anchor where you pleaſe.

He that falleth to leewards, or by any other accident cannot come by Landſoort into the Liet of Stockholm, he may ſayl in more to the northwards through divers channels. Amongſt others there is one where men may ſaile into, & come by the great Daler into the Lieth: there goeth anker in by the Sweedes ſand, through it men come by Berckhaven into the Liet. The knowledge of this channell is a very high rock, with another that is not ſo high, there by to the ſouthwards of it, betwixt theſe two rocks goeth in this channell, it is very narrow in the commingh in, not above two ſhippes lengths broad. So ſoon as you come in within theſe rocks, you may edge up about by the loweſt, which is the ſouthermoſt, and anchor under it in very good anchor ground.

From that road in the Swedes ſands the Sound goeth up firſt about n. w. & by north & n. w. 5 leagues unto Berker haven into the Lieth of Stokholm. This is a very eaſy channell as well for to ſayle in as out, but becauſe it is not eaſy to beknown, comming in out the Sea, it is ſeldom uſed.

To the ſoudwards or the weſtwards of theſe two foreſaid rocks, at the comming in of this channell, it is all low land. If you come from the ſouthwards, and run alongſt by that low land, ſo longh untill that you begin to get the hig land, you ſhall alſo run in ſight of theſe two foreſayd hommoks. About a league to ſeawards from them, lye 3 or 4 ſmal roks, for to ſayle in there you muſt leave them on the ſtarboard ſide, and in ſailing out on the larboard ſide.

From the ſouthend of Oeland to the ſouthend of Gotland, the courſe is e. n. e. & n. e. & by eaſt 23 or 24 leagues out to the Karels n. e. ſomewhat northerly 27 leagues.

The courſe alongſt the fareway, for to ſayle from the ſouth end of Oeland throug betwixt Oeland and Gotland, n. e. and by north.

The Iſland Oeland is twentie four leagues longh, and a league and half broad, when men ſayl alongſt by it, they ſay countie 18 towards upon it, which are al flat the eaſt ſide is a clean coaſt, and lyeth n. n. e. & ſ. ſ. w. but about 4 or 5 leagues to the ſouthwards of the northend, there shooteth of a little riffe, thwart from the land a great half league into the Sea, which men muſt avoyd: by it goeth in a little haven, where indifferent ſhipps may goe in, otherwiſe Oeland hath no havens.

From the ſouth end of Gotland runneth of a foule ſtonie riffe, a good wayes in to the Sea, you may run about by it on the lead in 7, 8 & 9 fathom.

The Karels are two little hig Iſlands, lying on the weſt ſide of Gotland nord & by weſt about 7 leag. from the ſout part of Gotland, & eaſt & weſt about a half leag. one from the other, the greateſt is called the greate Karel, & lyeth a little league from the land, the ſmalleſt the little Karel, & lyeth about a halfe league from the ſhoare. When you come from the ſouthwards, the great Karel ſheweth it ſelfe in two hommocks, & the little Karel in one hommock, and nigher to the land. Under the little Karel is round about good roade, in 8, 9 & 10 fatum, & is round about clean & ſure, without foule grounds.

Men doe anchor betwixt it & the land, in 6 or 7 fatum, there it is good lying for all winds, as well for them that are bound to the eaſtwards, an to the weſtwards. He that ſhall be to the northwards of Gotland, and ſhall get a contrarie wind, may alſo anchor under the great Karell, but under the little Karell is farre the beſt roade. Under the great Karell men may anchor, on the weſt and eaſtſide, but on the north & ſouthſide it is foule, therefore come no nearer it by nigt, then in 11 or 12 fatum. Betwixt the two Karels it is 13 and 14 fatum deep.

About half wayes betwixt the Karels & the ſouth end of Gotland ſ. ſ. e. from the Karell, lyeth the haven Boſwyke: thwart of it runneth of a riffe, an the north ſide of the haven a good wayes from the ſhoare, come no nearer it then in 7 or 8 fatum. When you are thwart of the ſouth poynt about a halfe league from the land, & will ſayle alongſt to the northwards of Gotland, you muſt not ſail on more northerly then n. w. as wel for to avoyd that riffe of Boſwycke, as for to ſayle a weather the Karels. Boswyke.

Four leagues n. e. from the Karel, lyeth the Iſland Reef holm, thwart of it men doe runne into weſtergore: you may ſayle & ancor round about it. A little to the northwards of it lyet the n. w. point of Gotland. Reef-holm.

Two leagues to the nordwards of the hig point lyet the towne Wiſbuy, about 7 leagues n. e. from the Karell. Men were wont in old tyme to lye there behinſte head or Cheſt.

Wiſbuy hat bene in tymes paſt a famous marchant towne, where was wont to be drieven greate trade of Marchandize, but it is now throug the will of God, altogether fallen down, and come to nothingh. The Hance towns have a longh time there held their ſtaple. The old Sea laws were made there, & alſo the old Samons Read-carde. Men may ſee yet to this day many old ruinos houſes of coſtly marble & hewen ſtones, whereby men may partly perceive and judge, what manner of ſtalteniſſe there hath been. Wisbuy

From Wiſbuy the coaſt lyeth forth n. e. and by eaſt towards the end off Gotland about 9 leagues. But from the Karell to Goſhe ſand, the courſe is n. e. 21 or 22 leagues: there is a little Iſland, whereupon dwelleth no people, & ſtandet ful of trees: you may ſaile round about it, which hath a white ſtrand. From the n. w. point thereof ſhoteth of a little rif and likewiſe one from the ſouth point, a good wayer of into Sea, towards the north end of Gotland. On every ſide of Gotſe ſand, you may anchor in 6, 7, 8, 9, 10 & 12 fatum, & clean & good anchor ground, but theſe foreſaid riffes you muſt avoid. It lyeth n. n. e. 6 leagues diſtant from Faro, the north end of Gotland, when you ly there onder it at anchor, you cannot ſee Gotland.

The Copper ſtone lyeth from Gotſche ſand n. w. and by weſt diſtant thre great leagues.

Upon the ſouth end of the eaſt ſide of Gotland ſtandeth a high tower, called Horbroug, & there after the ſouth end of Gotland alſo is called Horbroug, by it goeth in a little river, before which you may anchor in ſix or ſeven fathom.

Five leagues northeaſt from the a foreſaid ſouth point lyeth Heylig-holm which is a good haven, but by reaſon it is but little uſed, it is therefore alſo but little known.

Two leagues to the eaſtwards of Heyligh-holm lyeth the haven of Narwyck, upon the eaſt ſide of the Haven lyeth a long rock, by which you muſt run in, and leave another ſharp rock on the larboard ſide, within the haven you may anchor in four or five fathom.

Two leagues to the eaſtwards of it lyeth Sandwyk which is a good haven for a weſt, n. w. n. e. and ſ. e. winde, and lyeth in about north, a ſouth winde bloweth there open in: On the eaſt point, (which is a low bare point) lyeth a Holme, which is faſt to the land, upon it ſtandeth a warder: From this poynt runneth off a little ſandriffe, which you may ſound about in 5 or 6 fathom. Within at this Holm is a bridge of Maſts which lyeth off a little from the ſcoare. If you wil anchor there in the Haven, then run in alongſt by the eaſt ſhoare, untill you come whith in the bridge, and anchor there neareſt the ſhoare, ſo that the foreſaid point do ſtand ſ. e. or ſ. e. & by ſouth from you. In 4 fatum, four & an half, or 5 fatum, there is cleane clay ſand ground, and very eaſy lying for weſt, north and eaſt winds.

A league to the eaſtwards of Sandwyck lyingh the Iſland of Eeſtergore, about halfe wayes betwixt bot the ends of Gotland n. e. from the ſ. w. point this is a bare Iſland without trees. Under this Iſland is very eaſy road for al winds, as wel for them that are bound to the eaſtwards, as to the weſtwards. Comming from the weſtwards, or from Sandwyk alongſt by the land, then is the n. w. point (which is a hig bare gray point) hidden behinde a point of the maine land of Gotland, ſo that it ſeemeth a farre of to be no Iſland, bot comming near it, it openet it ſelf, that you may ſee large enougt through betwixt them: ſaile in there betwixt them both in the midſt of the channel, it is there clean & clear, but ſomewhat uneven of ground, to wit, 8, 10, 12 & 14 fatum, but you need not feare. If you wil ankor under it for n. e. or eaſtwinds, then ankor betwixt the land & the Iſland, ſo that the a foreſaid bare gray n. w. point ſtand nord & the ſoutermoſt eaſt from you, in 9 or 10 fatum. Or if you wil ankor for a ſ. ſ. w. or weſt winde, then run further in about by that a foreſaid bare gray point, bring it ſ. ſ. w. from you, & ankor there in 7, 8, 9 or 10 fatum, there it is cleane ground of ſmal white & black ſand. A little to the nordwards of the Iſland is a great Bay on Gotland, there you may alſo ankor in 7 & 8 fatum, for weſterly windes. Eastergore.

If you will ſayl in or out, to the northwards of Eaſtergore then come not very near the Iſland, becauſe there lyeth of a riffe from the eaſt point farre into the Sea, which is a great half league without the land, not deeper then two ſatum and a half, ſtony & very uneven, & is to be thought, that nearer to the land it is ſhoaler & fouler. From the ſ. e. ſide runneth of alſo a flat, a good wayes to Seawards, at ſome places not deeper then 3, 4 & 5 fatum, & alſo very uneven, where of you muſt take heed.

Foure leagues north and by eaſt from Eaſtergore lyeth a haven, called Sliet or Sliet haven, lying in nord & nord & by weſt, behoud ſome little Iſlands, there is good lyingh for eaſterly, weſterly, and nord winds. Upon one of the northermoſt little Iſlands ſtandeth a ruinos Church. You muſt come in there alongſt by the ſhoare from them ſouthwards. From thence to Faroſound the coaſt lyeth north and by weſt two leagues.

Faro ſound you may run into, in 2 and 3 fatum water, there ſtandeth a church with a flatte ſteeple upon the land. From Faro ſound lyet off a foule dangerous riffe, a league and halfe, or two leagues into Sea, called Sal fonteyn, you muſt take very good heed there of, when you will run about to the northwards of Gotland.

From Faroſound to Gotſcheſant, the courſe is n. e. about 7 leagues.

Of

Of the depths & grounds about theſe Coaſts.

Betwixt the ſouth ends of Oeland & Gotland in the fare way, it is uneven for to ſound, ſometimes men have 22, 23, & ſometimes againe 28, 29 and 30 fathom, all black mingled ground, ſometimes ſtones ſo great as peaſe, of colour like black earth.

When Howbrough is n. n. e. 7 leagues from you there it is 15 fathom deep, ſtonie-grounde, from thence on northeaſt 2 leagues, there it is 20 fathom deep, foule ſtonie ground. Neare about the places, ſo far from land that you cannot ſee Gotland, are banks, where it is not deeper then 12 fat. The like uneven grounds are alſo thwart of the ſouthend of Oeland as hath beene ſayd in the former, but betwixt them both is deeper water. If you kome in the fareway from Rye to Brontholm betwixt the ſouth-ends of Gotland & Oeland, and muſt lye by with conttary wind, when you are in 10 or 12 fathom, and then ſayle towards Oeland, you ſhall get deeper water.

If you lyet by betwixt Oeland and Reefcoll, and that Reefcoll come to bee S. S. E. and S. and by E. from you, ſo farre without the land, that you cannot ſee it, then you ſhall get alſo the like uneven ground of 10 and 12 fathom, redde groſſe ſtonie ſand, and alſo blackiſh groſſe ſandie Stone-ground. If you bee neareſt to Oeland, you ſhall get in 10 or 12 fathom pittes in the tallowe, ſo that it ſeemeth that theſe grounds of Oeland doe run over unto or neare Reefcoll. The like grounds and univeneſſe doe ſeme to lye over the ſea alſo from the ſouth-end of Gotland towardes Roſe head: for when the ſouth-end of Gotland commeth to be about north from you, althoug it be 14 or 16 leagues from you, you ſhall finde depth of 16 & 20 fathom ſoft grounde, like as of from Oeland, but if Gotland be more eaſterly or weſterly from you, you ſhall have deeper water.

When you are about a league by weſt the ſouthweſt-poynt of Gotland, ſo that is be ſoutheaſt or E. S. E. from you about a league, then Karels lye about north from you, which you may even ſee in cleare weather, there aboutes it is ſhoale water a good wayes of from the ſhoare, when the weſt-poynt or ſteepe point is about north from the ſhoare. When the weſt-point or ſteepe poynt is about north from you a little to the eaſtwards or to the weſtwards of it, there is 10, 12, 14, 16 & 18 fathom deepe, a great wayes from the land: but when that poynt cometh to be northeaſt, eaſt northeaſt, or eaſt from you, there it is above 40 fathom deep.

Betwixt the ſouthweſt-poynt of Gotland, & the north-point of Oelant it is alſo very deepe, ſo that there you cannot caſt ground with 40 fathom.

When you are northweſt and northweſt and by north about two leagues from Houbroug, there you have great red ſtone ſand, and black ſtones, in it, ſo great as beanes.

Betwixt Gotland and the Sweeds ſchares in the fareweye it is 34 & 36 and 38 fathom deepe, and cloſe by Gotland 25 fathom.

When the Tower of Houbroug is weſt northweſt from you, ſo farre as you may ſee it from the poope, there it is 30 & 31 fathom deepe, but being north northweſt from you it is ſhoales, 25 & 26 fathom.

Betwixt Howbroug & Eaſtergore lyeth a banck of 24 fathom, groſſe red ſand, ſo farre without the land, that you cannot ſee the land out of the top. To the eaſtwards of it lyeth another banck of 14 fathom gray and white ſand when you are over it, you ſhall have no ground in 40 fathom.

Two leagues without the land, by weſt Eaſtergore, there it is about 31 fathom ſoft ground.

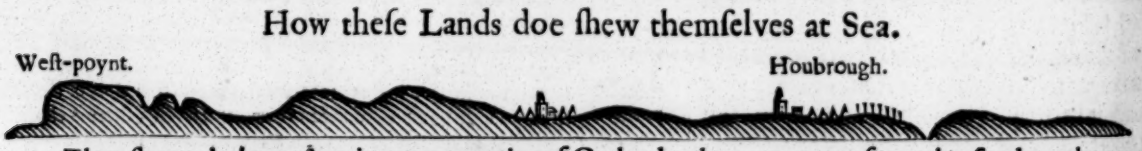
He that ſayleth from Brontholm alongſt by Oeland towards Eaſtergore, let him not ſpare his lead, but ſound of ten for theſe a foreſayd banckes and groundes; thereby you may well make ſome reckoning.

If you ſhould make reckoningh to come by night with Gotland on the ſoutheaſt-ſide, and have no good ſight, then come no nearer the land (about the north-end or ſouth-end, alſo by Eaſtergore) then in 20 or 24 fathom, and ſo you can take no hurth by night. By day you may come neare enoug to it at many places, in 7, 8 or 10 fathom.

How theſe Lands doe lye one from the other, and from the other Lands.

From Houbroug to Eaſtergore northeaſt	12 or 13 leagues
From Eaſtergore to Faro ſound north and by eaſt	7 leagues
From Faro-ſound to Gotſcheſand n. n. e. and n. & by eaſt	6 leagues
From Houbroug to the Karels north northweſt	7 leagues
From the Karels to Wisbuy northeaſt	7 leagues
From the Karels to Gotſcheſand northeaſt	21 or 22 leagues
From Houbroug to the north-end of Oeland northweſt	14 leagues
From the Karels to the Sweedes Jonckvrouw, w. & by north	13 leagues
From the Karels to the Channell of Stockholme, north, a little more Weſterly	23 leagues
From the Karels to Boeckſchaer northeaſt northerly	46 leagues
From Gotſcheſand to Boeckſchaer, northeaſt and by north, a little more northerly	20 or 21 leagues
From Gotſcheſand to the ſouth-poynt of the Alands-haff, north and by eaſt	33 or 34 leagues
From Gotſcheſand to Uttoy northeaſt and by eaſt	36 leagues
From Cotſcheſand to Dagerorte eaſt northeaſt	26 leagues
From Gotſcheſand to Derwinda, ſoutheaſt	31 or 32 leagues
From Eaſtergore to Dagerorte, northeaſt and by eaſt	39 leagues
From Eaſtergore to Derwinda, eaſt and by ſouth	29 leagues
From Eaſtergore to Quinsbroug-deepe, ſouth and by eaſt	52 leagues
From Eaſtergore to Roſe-head ſout and by weſt	45 leagues
From Houbroug to Hondſorte, e. n. e. & by eaſt	50 leagues
From Houbroug to Lyſerorte, e. & by n. ſomewhat eaſterly	40 leagues
From Houbroug to Derwinda, eaſt ſomewhat northerly	37 leagues
From Houbroug to Dermemell ſoutheaſt	37 leagues
From Houbroug to Quinsbroug-deep, ſouth ſoutheaſt	48 leagues
From Houbroug to Roſe-head ſouth	35 leagues
From the north-end of Gotland to Derwinda, eaſt ſoutheaſt ſomewhat ſoutherly	28 or 29 leagues
From Scheggens to the Sweedes Joufer northeaſt	7 leagues
From the Sweedens Joufer to Ideſound the Channell of weſterwycke, Silbuy, north and by weſt, ſomewhat weſterly	7 leagues
From the Swedes Joufer to Northeroorden, the north-end of Oeland eaſt and by north	3 or 4 leagues
From Northeroorden to the channell of weſterwycke, n. w.	8 leagues
From Northeroorden to the Barſound, north and by weſt	15 leagues
From Northeroorden to the Hevering, or the channell of Nycopin north	18 or 19 leagues
From Northeroorden to Hartſoe north and by eaſt	20 or 21 leagues
From Northeroorden to Landſoort north northeaſt a little more northerly	21 or 22 leagues
From Hevering to Landſoort eaſt and by north	6 or 7 leagues

How theſe Lands doe ſhew themſelves at Sea.



Thus ſheweth the weſt-point or n. w. point of Gotland, when you come from the ſouthwards.



When Gotſcheſand is northeaſt from you two leagues, it ſheweth thus.



In this forme ſheweth the land a little to the weſtwards of Eaſtergore, when that poynt is a great league weſt from you, there it is 24 and 25 fatum deep, ſoft ground.



Eaſtergore being a league weſt from you, ſheweth thus, there it is 25 fathom deep.

FINIS.



The ſecond part of the New SHINING SEA COLUMNE, OR SEA MIRROUR.

THE FIRST BOOKE,

Of the

WESTERNE NAVIGATION,

Containing

The deſcription of the Sea-Coaſts of Holland, Zealand, and Flanders, from Teſſel to the Heads of Dover and Calice.

The firſt demonſtration,

Where in

Are delineated the Teſſel-ſtreame, and the Channell of the ſame.

Pampus

WHen you ſayle from Amſterdam to the Fall of Urck, you muſt keep the middle of the channell, in ſailing to Tyoort, & from thence over Pampus, with a ſhipp of great draught, that draweth tenne foot or more, keepe Marken churh without to the land of Udam, called Schyteldoecks-haven, ſoo long untill that the ſteeple of Zuyderwouw come paſt Kinnigherbuert, which are the houſes half way betwixt Schyteldoecks-haven & Durgerdam, goe then towards the land eaſt, untill that the New church of Amſterdam come about Durgerdam, keepe that ſoo ſtanding, untill that the church of Weeſp be come paſt the Houſe or Caſtle at Muyen, ſo that it do ſtand ſomwhat nearer to Muyen, then to the Houſe, keepe Weeſp ſtanding ſoo, untill that Edam come without the eaſt end of Marken. In this fare waie it is a footo deeper, then if you ſailed right through.

For to avoyde Muyen ſand: men were wont to bring the houſes which were wont to ſtand upon Tyoort to the ſouthwards of the Heyliger-ſtee at Amſterdam, thereby you may make ſome reckoning, they are good longſt markes: when Monnickedam is about the weſt end of Schyteldoecks-haven, and the Houſe at Muyen betwixt Weeſp and the church at Muyen, then are you thwart of Muyen ſand. For to ſaile right through over Pampus, then keepe the ſteeple of Diemen over or about the point of Tyoort, ſo long as you can ſee Tyoort, that is a right longſt marke for to ſaile over Pampus.

When you are come thwart of the eaſt end of Marken, goe then on northeaſt, or ſomewhat more eaſtwardly towards the Fall of Urck, which is ſeven leagues: when you are come with in a great league of Urck, you ſhall meete with a hard ſand, called the Houtribbe, lying ſoutheaſt and nortwheſt thwart over the Fare waie, there is no more water upon it, then upon the Flat of Wieringen, or of Freeſland, you ſhal finde alſo no deeper water there then eight through. When Enckhuyſen lyeth northweſt and northweſt and by weſt from you, then you are upon the Hout-ribbe. Before that you come againſt the ſand, you can by night ſee the fire upon Urck. When that Urck or the fire is more northerley then northeaſt from you, and that you get ſhoaling, then that is certainly of the Hout-ribbe: for ſo you cannot come to neare the Enckhuyſen ſand. When you come from the ſouthwards, you are not about the Enckhuyſen ſand before that the church upon Urck come without the little village of houſes, which is ten eaſt and by ſouth, and eaſt ſoutheaſt from you: if that then you goe affay n. w. and by w. or w. n. w. you ſhall runne cloſe alongſt by the ſide of the ſand. With a ſhip of great draught, bring the church a good way through the houſes, untill that it ſtand e. ſ. e. from you, then goe bouldly on n. w. & by w. or keepe Medenblick without the point of the Ven, and ſo you ſhall not come too near neither to ſand nor ſhoale. Likewiſe if you come from the northwards, and bring Urck not more eaſtwardly then e. ſ. e. from you, then you cannot take hurt alſo of te Enckhuyſen ſand. From Urck to the buyes upon the Cripple and Hofſtede, the courſe is n. w. and by w. with that courſe you may runne all alongſt unto the ſouther buye upon Wieringen Flat: in turning to windwards, you may well bring Medenblick a little within the point of the Ven, but when as Medenblick is without it, then you are in the right fare way.

Marks of Enckhuyſen ſand.

Betwixt Urck and the buye upon the Hofſtede northeaſt ſomewhat eaſtwardly from the ſteeple of Enckhuyſen lyeth a little plate of hard ſand, lying towards the end of Enckhuyſen ſand, wich is not deeper then the Frees Flat, about to the eaſtwards of it, is the deepeſt water, but about to the weſtwards of it (by ſome called the Katte-gat) you ſhall be ſooner about the High horne, or the Enckhuyſen ſand, and it is good for ſhips that draw but little water.

The thwart markes of the buyes, both upon the Cripple and Hofſtede; are Grootebroeck & Hem (two ſharp ſteeples) right one in the other, and Warnis a little ſharp ſteeple in Freeſland to the ſouth ſide of the Cliffe of Staverne, then you have the length of theſe buyes, which lye each of them in three fathom, the one on the eaſt ſhoare, and the other on the weſt ſhoare upon the tayle of the Cripple. There is the right fare waie, two foot leſſe then five fathom, & ſoft ground. When the ſteeple of Medenblick commeth to the northwards of the houſe of Medenblick, ſo farr as the houſe is broade, then you are cleare of Cripple ſand, and paſt it; goe then on northweſt, and northweſt and by north to the buye upon the Creyl, according as the winde and tyde ſhall be, the right farewaie there, is deep five fathom ſcarce. Thwart of the Creyl, in ſailing out, or about the Creyl, in ſailing in, that is a little within the Creyl on the north ſhoar, lyeth alongſt the reach (towards the buye upon the Hofſtede, a hard ſand or plate, called the

Marks of the buyes upon the hofſtede & Criple.

The Creyl.

South-Creyl. ſouth Creyl, upon which there is no more then twelve foot water, at low water, betwixt that banck and the north ſhoare, it is three fathom deepe, and ſoft ground, and to the ſouthwards, or the weſtwards of it, foure fathom and an halfe. When Mirnes, a little flat ſteeple in Freeſland, cometh over a long countriehouſe to the ſouthwards of the cliffe of Staverne, then you come right thwart of that foreſaid plate.

Mark of the Creyl. The markes of the buye upon the Creyl, are the ſharpe ſteeple of Twiſch over the Cornemill to the weſtwards of Medenblick, & that little flat ſteeple of Mirnes to the ſouth ſide or eaſt ſide of the cliffe. The right fareway there is four fathom & an half, & five fathom deep, ſoft ground, the buye lyeth in four fathom, if need require, men may runne wel a cables length about to the eaſtwards of it.

Markes of the beakon upon. Cripple-ſand. From the Buye upon the Crippell, which lyeth upon the eaſt end off the Cripple-ſand, three fathom unto the Beakon upon Cripple-ſand, the courſe is northweſt and by weſt, and northweſt. When Lutkebrooke, a ſmall ſpire ſteeple commeth to Hem (which is alſo a ſpire ſteeple) then are you thwart of that beakon. From the Beakon upon the Cripple, unto the ſouther buye upon Wieringher flat, the courſe is northweſt and by weſt, or weſtnorthweſt, according as the wind and tyde ſhall ſerve, it lyeth at high water with an ordinary tyde in thirteene foot and a halfe, the markes there of are theſe: Grootebrooke commeth betwixt two Hay-ſtacks to the eaſtwards of the five water-mils, which ſtand to the eaſtwards of Warvers-hoof, that is a long marke in the ſ. Twiſch a ſharpe ſteeple to the weſtward of Medenblick, commeth over Almerdorp, there was wont to bee a little flat ſteeple, but it is fallen downe, and therefore now not ſoo well to bee knowne, that was a right thwart marke. Upon Wieringen ſtandeth a cape, bring Eaſt-lander ſteeple, which is a flat ſteeple upon Wieringhen, right over the cape, and ſayle ſo right with it, and you ſhall come right with the buy. When you are at the buy, Weſtlander Church commeth then over Clever-ſtee, and the eight mils to the eaſtwards of Medenblick, a little without the Towne. For to finde the deepeſt of the flat comming from the Cripple, you muſt bee carefull to looke out for the foreſayd markes. If that Twiſch come firſt to Almerdorp, before Cleverſtee come to Weſtlander Church, then you are to neare to Breeſand, or the grounds on the ſtarboard ſide, theſe are ſure markes for to ſayle over the flats, when there lye no buyes Alongſt to the eaſtwards of the buye is the deepeſt water. If you will anchor before the Wieringer flat, then come no nearer the flat, then when Twiſch commeth a little to the northwards of Opperdoes, or halfe way betwixt Opperdoes and Almerdorp.

Markes of the ſouther-buy upon the Flat.

For to ſail over the Gammels to Medenblick. For to ſayle from the foreſayd ſouther buy over the Gammels to Medenblick, you muſt bring the weſtermoſt water-mill of the eight (which ſtand to the eaſtwards of Medenblick) a capſtone barres length without or to the eaſtwards of the Bulwarke of the Towne, and ſayle then boldly without feare right in with them, untill that you come into the road where the ſhips commonly lye, or elſe, if you deſire to goe into the Haven, then ſayle in right to the northerhead, there is nothing that can hurt you, but if you muſt turne to windwards over the Gammels, and that your ſhip draweth more then eleven foot water, then runne not further over to the weſtwards, then that the foreſayd Water-mill commeth almoſt within, or a handſpikes length to the foreſayd Bulwark, ſoo that yet you may well ſee through betwixt them, then caſt about, & run over to the eaſtwards, ſoo long untill Grootebrooke come in the five water-milles, which ſtand to the eaſtwards of Warmers-hoof, or on to the eaſtwards of them, ſo you ſhall not doe amiſſe, for it is there broad and wide.

If you deſire to ſayle over the Gammels to Medenblick, when you come from the Flye, then bring the ſteeple of Opperdoes over the weſtermoſt Water-mill of five, which ſtand to the weſtwards of Medenblick, and runne in ſoo right with them, untill that the weſtermoſt water-mill off eight (to the eaſtwards of Medenblick) come to ſtand a capſtone barres length without the Bulwark, as here before once already hath been ſayd. Having theſe marks thus, and that it doe become darke, then goe on ſouth & ſouth and by eaſt, according as the wind and tide ſhall ſerve, and you ſhal not doe amaſſe, neither ſhall you miſſe the Town. In this foreſaid faire way, there is no leſſe depth then upon the Wieringher flat, and all ſoft ground.

When the ſteeple of Twiſch is over the weſtermoſt watermill except one of the five which ſtand to the weſtwards of Medenblick, and Grootebroeck, in the little village, to the eaſtwards of the five water-mills on the Faſterdyke; then are you in 13 foot from the northweſt poynt of the Cripple, and paſt the taile of the Cripple. Upon theſe foreſayd markes, & 13 foot, lyeth a buye with three legges, & on the foreſayd weſt ſhoare lye three drift-beakons in 12 foot, and then commeth the weſtermoſt water-mill (of the eight which ſtand to the eaſtwards of Medenblick) and ſo you ſhall not have leſſe water then upon the Wieringer flat.

Fore ſailes the Wieringen fl. From the Souther-buye to the ſecond or middle buye, the courſe is northweſt and northweſt and by north: but for to find the deepeſt water, goe firſt northweſt ſo long untill that Ypels-hoofs Churgh come over the water-mill, which is called the Bolmill, and then forth n. w. and by n. When the Cornmill upon Wieringen commeth in the ſwamp off the Oever, then you have the length of the ſecond Buye, which lyeth upon the weſt, or the ſouth end of a little plate, called the Repell, the faire way is alongſt to the weſtwards of it, there being at low water two fathom large, and at high water ſcarce three fathom deep. On the weſt ſide of the fayre way, betwixt the ſouther-buye, and the middle-buye, neareſt the middle-buy, lyeth a hard ſand called the Sow, or the old Sow, which on the eaſt ſide is very ſteepe and needle to which (in ſailing up) men might ſayle within a poynt or tayle of it: to the weſtwards of it ſhooteth off another tayle to the northwards, a great wayes towards the Northeaſt buye. Upon the outermoſt, or northermoſt poynt, called Seughoort, ſtandeth alwayes a beakon. Upon Wieringer upon the Oever ſtand two little capes with barrels on them, the one upon the North end off the Oever, and the other upon the head, they are ſo little, that you can hardly ſee them: when you come off from the ſouther-buye towards the middle-buye, then keepe them not one in the other, for if you keepe them one in the other, then you will bee very cloſe by the ſouth ſhoare, and ſhall but even run cleare of the old Sow, but keep the ſouthermoſt a little to the weſtwards of the northermoſt, and then you ſhall run alongſt the right fareway, and ſhall not take any hurt of the old Sow. When you come neare the middle-buy, you muſt leave theſe marks and uſe them then no longer.

From the middle buye unto the Norther-buye, the courſe is northnorthweſt, when you come thwart off the norther-buye, then commeth Ooſtlander Church and the Cornmill both over a little Chappell covered with red tiles, that ſtand upon the Oever, thwart off it alſo ſtandeth the foreſayd beakon upon Seughoort. By the Northerbuye it is ſcarce three fathom deepe at high water, the fareway is alongſt to the weſtwards off it. When you come by the norther-buye, keepe ſtill the foreſayd northnorthweſt courſe, untill that Ooſtlander Church come to the northwards of the Sedge-dyke of the Oever, and then you are paſt the little plate which lyeth by the Northerbuye.

When as that Ooſtlander Church commeth from the Sedge dyke, goe then north, and n. and hy e. on, to the Neſſe. In that Fareway it is broad and wide the weſt ſhoare all alongſt unto the Neſſe, is very flat, there you cannot take any hurt, but may boldly runne alongſt by it,

Cust van
HOLLANT
Tusschen de Maes
ende Texel
't Amsterdam,
By Iacob Theunisz opt
water inde
Lootsman

H O L

Egmont

Beverwyck

de Helder
Kaap

TEXEL de Hoorn

de Wesen

de Buy

Landt diep

Spanjaerts gat

Keyser's plaet

de Stuck

Die Bree Veerdien

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng: en Fra. mylen 20 in een graet

Haerlem

Delft

A N D T

Santvoort

Noortwyck op zee

Catwyck op zee

Scheveling

S Gravenhage

Lier

Naeldwyck

Leesduynen

S Gravesand

Monster

Goeree

4

De TEXEL Stroom en de Gaten van Marsdiep.

Medenblick
Enckhuysen
Hem een hoge spitse toren
Dryfstal
Ton op de Krenpel
Zuyder ton
Baken op de Krenpel
De Kille
Middel ton
Breesand
Wieringen
Caap
Oever
Oostlander kerck
Strü
Westlander kerck
Texel
Repel
Mars diep of Koopvaerders reede
Nieuwe diep
Land diep
Kleyn Schild
Zuyd-Hasselt
de Waal
de Burgh
de Hoorn
de Westen
de Koogh
Eyerland
Het vaer-water vande Pan
Spanjaerts gat
Stenen
Keyzers plaet
Duytsche mylen 15 in een graet
Fran. mylen 20 in een graet

Caerte van

DE MASE,

Ende het

Goereesche gat

't Amsterdam.

By Iacob Theunisz op't water in de Lootsman.

Rotterdam
Delfshaven
Overschie
Scheidam
De Ketel
Vlaerdingen
Delft
Vlaardingen
Maasland
Maasland Sluys
Lier
Vlaardingen
Schiedam
Parms
Hoochvliet
Bos
Spijkenisse
't Lant van Putten
Sullandt
Goerliet
Ambroeck-al-Abbenbroeck
Heemvliet
Nieuwe Sluys
Swartewael
Middelharnis
Sommerdyck
Dirckmt
Hellevoet Sluys
Nieuwen Hoorn
Hellevoet
Den Briel
Quack
Melissant
Den Hals
De Stulp
Goeree
West Voeren
Ouddorp
Nolle
't Lant van Goeree
Oostvoorn
Rockanje
VOOREN
ISLAND
Duytsche mylen 15 in een graet
Eng en Fra mylen 20 in een graet

by it, al though it where a lee ſhoare, but the eaſt ſhoare is ſteepe, eſpecially ſomewhat farther out towards Iaep-vaer, when the great Cape from Wieringhen ſtandeth a great ſhippes length to the eaſtwarde off the houſes upon the Oever, then you are well to waye, and right in the Farewaye, betwixt the norther-buye and the Neſſe. When Ypelshoof and Struare one in the other, there is the roade, where men doe lade and unlade, you may anchor there-abouts in the middeſt of the fareway in foure fathom, the nearer the eaſt ſhoare the deeper. Iaep-vaer is a tayle of ſand or plate faſt to the ſhoare, which you might ſayle within where you ſayle off, but ſpecially in ſayling apwards in 6 or 7 fathom, upoint lyeth a blacke bay. Upon the poynt of the Neſſe over againſt Iaep-vaer lyeth a white buye, theſe lye both in three fathom or three fathom and a halfe. In the whinter, when the buyes are taken away, then in place of the white buy there is ſet a beakon upon the Neſſe. From the Neſſe to Vogelſand, the courſe is moſt northweſt, therefore when you have gotten the length of the buye or the beakon upon the Neſſe, goe then more weſterly, northnorthweſt, and northweſt, and by north and northweſt, unto the beakon upon Vogelſand; the weſt ſhoare you may ſound in ſix and ſeven fathom. The markes of this reach are theſe, the Mill of Ooſter-end: (which is a little village upon the eaſt end of Texel) and the Cape which ſtandeth upon the dycke; one in the other, then are you amiddeſt the Channell in the deepe, that is, tenne, eleven, and twelve, fathom: when the mill ſtandeth ſomewhat to the ſouthwards, or to the weſtwards of the Cape, then are you, by ſouth ſhoare, which is very ſteep, which (in turning to windwards) you may not come nearer then in eight or nine fathom but being paſt Vogel-ſand, it groweth ſhoaler, and the eaſt ſhoare very ſteep, As ſoone as you finde that it begin-neth to ſhoale, you muſt eaſt about, elſe you ſhould preſently be on againſt the eaſt ſhoare.

From the beacon upon Vogell-ſand, the courſe is weſt northweſt unto the buye upon Burg-ſand, which lyeth upon the tayle of the Share, the markes of it are: the Eyerland even unto the eaſt point of the Iland Teſſel, and the Church of the Horne upon Teſſell too Zuyd-haffell, which is a few houſes to the northwards of the Schonce. Or elſe when you come about Vogelſand, then keep the foreſayd cape and mill one in the other, untill that the foreſayd Horn come to, or through Zuyd-haffel, & then run on, keeping them ſoo: When that Eyerland commeth even to the eaſt poynt of Teſſel, then you have the length of the buy upon the Burgſand, you may bring the Horne well ſomewhat to the northwards of Zuyd-haffel, but in nowiſe to the ſouthwards of it, for elſe you ſhould ſayle on againſt the ſouth ſhoare. For to ſayle from thence to Copevaerders roade, you muſt keepe the Horne to Zuyd-haffel, and ſayle forth keeping them ſo, untill you come againſt Teſſell in the roade, and anchor there where you thinke good. Before Ooſter-end it is beſt for ſmall ſhips, there it is ſhoald water; and there goeth little tide, but moſt ſhips doe anchor before the Geeſt.

Upon the point of the boſſe lyeth a white buy in three fathom on the weſt point of the Balgh, which you muſt leave on the ſtarboard ſide, and run about to the eaſtwards of it into the Balgh; & then forth alongſt by the beacons to Wieringhen, you muſt leave all the beacons alſoo on the ſtarboard ſide. The Boſſe.

For to ſayl up from the Helder towards the Wieringe-flat, you muſt goe northeaſt, or ſomewhat more eaſterly, according as the wind and tyde ſhall be, or elſe in eight or nine fathom alongſt by the Teſſel, untill that the Hoorn come to the northwards of Zuydhaffel, but take heed of the Wieringhen ſide, which is ſoo ſteepe there, that you may have twelve or thirteene fathom at one caſt, and ſhould be a ground before you ſhould be able to heave the lead againe.

When that the Hoorne commeth then to Northwards of Zuyd-haffel, then keep them ſo ſtanding, and ſayle up ſo to the Vogel-ſand, when that the Eyerland commeth even without the eaſt point of Teſſel, then you have the length of the buy upon Burghſand, which lyeth on the ſouth ſhoare, upon a tayle of ſand, which men may ſayle within at five or ſixe fathom. From that Buy upon Burgh-ſand, it is e. ſ. e. to the beakon upon Vogel-ſand, but ſayle upon the foreſayd markes of the Hoorn and Zuyd-haffell ſoo long untill that you have the Cape upon Teſſell, and the mill of Ooſter-end one in the other, then keep the one in the other leaving the firſt markes, and ſayl up ſo into the buy or beakon upon the Neſſe, and ſo you ſhall run amidſt the channell in the fareway which is 10. 11. and 12 fathom deep. If you bring the mill a title to the weſtwards of the Cape then you ſhall be cloſe by the ſouth ſhoare, which is ſo ſteepe, that you may not come neare it, in turning to windwards, then it eight or nine fathom. Being come about the Neſſe, then go on ſouth & ſouth & by weſt, towards the buy upon the flat.

Of the Tydes & Courſes of the Streams about theſe foreſayd places.

Upon the Wieringer-flat maketh full ſea a ſoutheaſt or northweſt moon. Before Texel, in Coopvaerders road eaſt ſoutheaſt, & weſt northweſt moone.

Heights.

The Marſdiep lieth in three and fifty degrees, ſayle out of the north ſea, (being in that heyght) eaſt on, and you ſhall fall right with it.

The ſecond Demonſtration.

Where in

The Coaſt of Holland from Texel to the Maes, as alſo the Channels of Texel, the Maes and Goeree at large.

TEſſell is a long plaine Iland, where upon ſtand 4. Churches, the weſtermoſt hath a high ſharpe ſteeple, and is called weſt-end, or S. Johns, but by the Pilots it is called the Weſten, or the Wambus: To the ſouthwards of that ſtandeth an other ſharp ſteeple, called the Hoorn. The third is called the Burgh, which ſtandeth ſomewhat more to the northwards then the other two beforeſayd. The fourth is called the Oogh, or the Koogh, which is the northermoſt of them all, without ſteeple, and is covered with blew ſlates.

The Eyerland lyeth cloſe to the eaſtwards, or to the n. ward of the Teſſell, and faſt to it, when it floweth ſomewhat high, it is divided of from the Teſſell by the ſea, & made to an Iland: it ſheweth it ſelfe of at ſea like a Low Plaine little Iland with little hommocks, there ſtandeth upon it no more then 2 little houſes. Eyer-land.

Huyſdown is a ſhort poynt of land with ſome white ſandhills, where of the greateſt and higheſt is called the Kyckdowne, or Kykers-downe, the next the ſouthwards of it, is called Dirckooms ſand-hill, further to the ſouthwards they run flat of by little and little, and at length to nothing in a flat plaine ſtrand. Upon the eaſt end, called the Helder, lye alſo ſome ſandy hills, betwixt Huyſ-down.

the Helder an the Kyckdown, it is a moſt flat ſtrand, with ſome ſandy hils like a dike, upon which (about halfe way betwixt both) ſtandeth the little or the outer moſt Cape, the great cape ſtandeth ſomewhat within the land, about eaſt from the Kyckdown.

Huyſdowne, or the Marſdeep and the Maes lye ſouth, ſ. w. ſomewhat ſoutherly, and north northeaſt ſomewhat northerly about 24 leagues aſunder. From Huyſdown to Petten the coaſt lyeth ſouth and by weſt foure leagues.

Petten. Petten hath a little Church with a little ſteeple, & thereabouts you ſhall ſee two other little ſharpe ſteeples in the Northland. A little to the ſouthwards of Petten lyeth the Hondboſch, a league to the ſouthwards of Petten lyeth Camperdowne the beſt land to be known thereabouts, the north end is a high ſteep white ſand-hill, which goeth ſloping downe: the ſouthermoſt part is gray and rough, being grown over with head, or ſpyrie graſſe, to the ſouthwards of it lye many rough hommockes or ſand hils, where ſometimes you ſhall ſee amongſt them a white ſpot, ſo that it is very good to be known. From Petten to Egmont upon the ſea, it is three leagues. Eg-

Egmont upon the Sea. mont upon the ſea is alſo verey good to be known, for it hath a thich flat ſteeple, which ſtandeth like a ſayle in the ſand-hill, and a little to the ſouthwards of it you may ſee Egmont-within, which hath two high ſteeples upon the Abbey cloſe one to the other, whereof the one is ſharpe, and the other (to wit, the northermoſt) is flat, becauſe the ſpire is lately falne downe. A little to the northwards of the Abbey ſtandeth another ſteeple of the church upon the old walls, but it is not ſo high as that upon the Abbey: ſo that upon all the coaſt of Holland, there is no place ſo good to be known as this. From Eg-

Wyck upon the Sea. mont upon the ſea, to Wyck upon the ſea, are 3 leagues that is alſoo a flat ſteeple: when you are thwart of Wijck upon the ſea, you may ſee Beverwyck a little to the northwards of it, which is a high thick, and ſharp ſteeple; beſides that, you may ſee alſoo betwixt Egmont and Wyck upon the Sea Caſtricom, and more other ſharp ſteeples, From Wyck upon the ſea to Santfort, it is three leagues,

Sandfort. Sandfort hath a ſharp ſteeple, with a high fire-beakon, a little to the ſouthwards of it, in the black ſand-hill which ſhewet it ſelfe alſoo like a ſteeple.

To the northwards of Sandfort lyeth a high white ſand-hil, alongſt over which you may ſee Haerlem, a high ſquare croſſe Church, which hath a high ſharp ſteeple upon the midſt of the Church, and alſoo to the northwards of it, a high ſmall ſteeple, called Baeckneſſer ſteeple) thwart of it hat the coaſt of Holland a great Bay. From Sand-

Noortwyck. fort to Northwyck upon the ſea, are 3 leagues, that is a flat ſteeple, whereby ſtandeth a fire beakon. To the northwards of Northwyck upon the ſea, you moy ſee Northwyck within, a flat ſteeple, whereupon ſtandeth a little cap not very high, and upon the midſt of the Church

Catwyck. ſtandeth a little ſmall tower. From Northwyck to Catwyck upon the ſea, it is a great league, being alſoo a flat ſteeple, which in times paſt hath had a ſpire: to the ſouthwards of it ſtandeth a high fire-beakon, ſeeming like a ſteeple: you may alſoo ſee thereabouts within the land (when you are not very fare from the ſhoare) Catwyck upon the Rhyne, and Reyns burgh, and Valcken-burgh,

Schevelingh. all ſharpe ſteeples. From Catwyck to Schevelingen are 3 leagues, the Quire of Scheveling Churck is ſomewhat higher then the Church it ſelfe: in manner as the Hagues Church: a little to the ſouthwards of that Church ſtandeth alſoo a fire beakon. About halfe a league within the

The Hague. land, you may ſee the Church of the Hague, which is very good to be known, the Quire is higher then the body of the Church. The Hagues ſteeple you may ſee far above

The Heyde. any other part of the land. From Scheveling to the Heyde it is 2 leagues, and from thence forth to Graveſand, or to the north ſide of the Maſe, one league. The Heyde is a village without a ſteeple: but a little within the ſand-

Monſter Graveſand. hill, ſtandeth a flat ſteeple called Monſter. Graveſand is a high ſharp ſteeple, very good to be known, which ſtandeth on the north ſide of the Maſe. The Brill is a great

The Brill flat ſteeple on the ſouth ſide of the Maes. All this coaſt of Holland, from Huyſdown to the Maes, is altogether a clean ſtrand, which men may come ſo neare to as they will, into 4 or 5 fathom.

For to ſayle from the Copevaerders road out at the Teſſel you muſt goe firſt ſouthweſt or ſomewhat weſterly to the Helder, or run alongſt by the Teſſel ſide in 9 or 10 fathom, untill you come neare the Helder, and then goe out weſt cloſe alongſt by the ſhoare of the Helder, and by little & little ſomewhat more northerly, untill that the capes upon Huyſdown be one in the other, or that the greateſt come through the ſmalleſt, to wit, to the weſtwards of it, and then goe out n. n. w. or more northerly or weſterly, according as the wind or tyde ſhall be, untill you come againſt the north ſhoare, in 5 or 6 fathom, and run boldly out alongſt by it, untill you be cleare out at ſea.

For to ſayl out at Teſſel.

When the tower of Weſter-end (which men do name the Weſtren, or the Wambus) commeth to be e. n.e. from you, or a little more eaſterly, then you have the length of Cape & ſteeples buy, that is, the innermoſt buy of the Spaniards channell, which you ſhall eſpie on the larboard ſide. To the northward of it lye three other buyes, all alongſt the eaſt ſide of the Keyſers-plate, neare upon one courſe, (to wit, n. n. w. or a little more northerly) which you muſt leave (in ſayling out) all on the larboard ſide. The outermoſt buy lyeth from the fourth, north ſomewhat eaſterly upon the poynt of the Keyſers-plate, in 22 foot at low water, you may run alongſt to the weſtward of it, but not far, for the Keyſers plate is on the eſt ſide unto the outhermoſt end very ſteep, but the eaſt ſhoare of the deepe is flat, when you come thwart of the foreſayd outermoſt buy, then lyeth the Kooger Church right e. n. e. from yoy, and the Capes upon Huyſdown are one in the other.

For to finde the Spanniards Channel comming from the northwards, you muſt bring the Capes upon Huyſdown one in the other, or a little through one another, to wit, the runner that is the ſoutermoſt and greateſt, a little to the eaſtwards of the other, then they ſhall ſtand ſ. ſ. e. from you, ſayle then right in with them, keeping them ſo, and you ſhall ſayle right upon the outermoſt buy, or in ſight of it, which lyeth (as is ſayd) upon the poynt of the Keyſers-plate in 22 foot at low water; when you come to the buy, the Kooger Churgh ſhall lye full eaſt north eaſt from you. Therefore if you come from the weſtwards or the ſouthwards then bring that Church not more northerley then eaſtnortheaſt, but rather a little more eaſterley from you, and ſayle them right in with it, untill that the Capes come one right againſt another, or elſe you ſhould lightly ſayle upon the Keyſers-plate, which is without upon the north-ſide very ſteepe. Men may runne a little weſtwards of the outermoſt buy, alongſt to the eaſtwards of it is it broader.

For to ſayl out the Spaniards Channel.

From the firſt or the outermoſt buy, to the ſecond, the courſe is ſouth, ſomewhat weſterley, and from thence to the third, fourth, and fifth, which is te buy of the Cape and ſteeple, it is almoſt one courſe, ſouthſouth eaſt, or ſomewhat ſoutherly, the buyes lye along the weſt ſhoare, men may for need ſayle alongſt to the weſtwards of them, but not farre, for the weſt ſhoare is ſo ſteepe, that if a great ſhippe ſhould lye with the ſtemme againſt it, there ſhould be at head no more then 3 foot, & by the main maſt at leaſt 3 fathom deepe, but the eaſt ſhoare is flat, men may runne alongſt by it upon theyr lead, untill they come within the buyes. The buy upon the tayle, that is the innermoſt buy of the old ſtenck, lieth from the buy upon Cape and ſteeple, ſouth & by weſt, & ſ. ſ. w. but the Helder ſoutheaſt, men may ſaile from the buy upon Cape and ſteeple, right with the Helder, without danger, or to the buy upon the tayle, & from thence alongſt by the ſouth ſhoare, which is alſoo very ſteepe, or right to the Helder, according as ſhall be beſt convenient for the wind and tyde. The fore-flood falles very ſtrong over the ſouth ground to the Spaniards channell, till half

flood

ſtood, and the fore-ebbe ſ. ſ. e. till halfe ebbe. The Helder lieth from the buy upon the tayle, eaſt ſ. eaſt and ſ. e. and by e. When you are come near the Helder, run cloſe by it, ſo to avoyd a tayle ſhooting off from Geeſt ſand, which you may ſayle within as you come from the ſea, there lieth a Buy upon it, which leave on the Larboad ſide. Being paſt the Helder, goe northeaſt; or a little more eaſterly, or alongſt the Teſſels ſide in ot nine fathom, unto the Copevaerder road. The Wieringhen ſide is ſteep.

In the Slenck uſed to lye ſix buyes, but the ſands are growne now ſoo high and have ſtopt the paſſage.

Within the ſixth Buy it is wide enough to ſayle in from thence right to the Helder eaſt ſoutheaſt.

To ſayle out at the Land-deepe, run alongſt within a bow-ſhot of the foot ſtrand of Huyſdown, and about by the heads, and you ſhall not miſſe the innermoſt Buy, lying on the ſhoals, neareſt the weſt ſhoare in ſeventeen foot at high, and 13 foot at low water, that ſhoaly place is not above 2 ſhips lengths broad, over it, and alſoo within it, it is deep enough. Thwart of that Buy ſhooteth off a little tayle from the ſhoare towards the Buy, therefore run cloſe alongſt by the Buy, an leave it on your ſtarboard ſide in ſailing out. Beſides that Buy, there lie 3 other Buyes in the Land-deep, which you muſt leave all lying to ſeawards of you, and ſo run betwixt them and the ſhoare, when you are paſt the 4 Buy, you are paſt all the ſhoale, and may ſayle where you will.

To finde the Land-deep comming from the ſea ſouthwards, you muſt ſound the ſhoare in four fathom and a halfe, and running ſo by the ſhoare, you ſhall ſayle right with the outermoſt buy; which doue, come no neare the ſhoare els you ſhould ſaile within the taile of Arrian Bergers Creeck, which ſhooteth off from the ſhoare, to the ſouth ſandhill. Or els if you come from ſea with an open winde, then keepe the great Cape upon Huyſdowne over Dirckooms ſandhil, (that is, a round ſandhil a little to the ſouth of Kijckdowne but not ſoo high) and ſayle ſoo in right with it, you ſhal then meet with the outermoſt buy, which lieth at low water in 4 fathom and a halfe neareſt the Weſter-grounds, or the hakes, leave it on the larboard ſide, and run in alongſt to the eaſtwards of it, betwixt it & the ſhoare, it lyeth moſt northeaſt, and northeaſt and by north in, you can take no hurt on either ſide, if you take heed to keep you from the ſhoare. Thwart of the Kijckdowne, or comming to the ſouthwards of it, you muſt edge a little from the ſhoare, to avoyd a ſhoale which lyeth neare ſomewhat off from the ſhoare. When you come to the ſecond buy, then commeth the mill to the Northwards of Kijckdowne, and at the third, the mill and Cane Nels howſe come one in the other; which two buyes lye in 5 fathom at low water. From the third to the innermoſt buy, it is n. e. and by e. run cloſe along to the eaſtward of it, to avoyd the foreſayd little tayle of ſand, which (thwart of it) lyeth off from the ſhoare, and then forth within a bow ſhot about the heads, and ſo along by the ſtrand of the Helder.

Concerning the Maſe, and Goerees Gat.

The Maſe is at preſent but a wide or broad flatt, having little change of depth, which may bee ſayled with all winds.

When the wind is ſouth, regard the old markes, that is (comming from ſea) before you ſee the Capes, bring the ſteeple of Brill which is a ſtumpy ſteeple e. ſ. e. ſouth from you, or a little e. or ſoutherly after you have gotten the cape, bring them together, and run on, or if you bring the Brill ſteeple a ſpades length northwards the tower of Ooſtvoorn, and run on, you ſhall then firſt run the buy in ſight lying in 3 fathom at low water.

From this firſt buy to the 2 and 3 buy, wee ſayle right upon the Capes. The ſecond buy lyes on 13 and the third upon 11 foote, being there come, the ſteeple of Goeree comes a little upon the foote ſtrand of the land of the Brill; the fourth buy lyeth much alike with the third right upon the Capes, through a little more ſoutherly betweene theſe buyes the ſhalloweſt of the Maes is about ten foote, by the fourth buy it begins to deepen, with a common low water, it is about eleven foote deepe, but with a ſoutherly or ſ. e. wind it runs ſhallower. From thence to the fourth buy is is broad, ſo that there wee may ſayle in a reaſonable depth. Below the Heydijck or in moſt beacon it is much narrower. The fifth buy lieth diſtant from the fourth e. n. e. and n. e. and by e. From the fourth buy to the fifth ſouthward along the buyes in the right channell it is deep 14. 15. 16. & 17. foote, & neare the fifth buy five fathom. The ſixth buy lieth from the fifth e. and by n. in twelve foote, there alongſt the ſouthward it is 5 & 6 fathom deepe, and is called the Pitt. Comming then a little beyond the ſixth buy, ſoo commeth Maeſlant-ſluce and Vlaerding ſteeple together, keepe them ſo and run forwards ſo long till you bring the old head of the Briel in the new head, then you may run to the land of the Briel and ſo further alongſt the ſouthwall, till you come before the Briel where you may anchor. Now who will run higher up the Maſe, let them run all along the ſouthwall till hee is paſt the New ſluce, chuſe then the Northwall. From the eaſt end of Rooſenburgh there come a tayle off; which you may underſayle comming weſtwards. If then (when you are paſt the heads of Swartewal) you bring not the Briel ſteeple without or northward theſe heads, but keepe to the ſouthward, you can not then underſayle it but muſt run farre about ſouthwards. Full eaſtward of Heenvliet runs the old Maes in; the flood falles there verry hard on, you muſt take heed that you bee not deceived with the Terweſand, that is a great flatt ſand, lying foremoſt in the midſt of the old Maſe, & that lyes a greate deale drye at low water; and ſtretcheth with a long ſmall point weſtwards into the Maes. To ſhun this, take notice of a buſh of trees, ſtanding on the ſouthwall, a little eaſtward the old Maes, keepe the ſteeple of Rotterdam northward that buſh, ſo ſhall you not ſayle over that Tarweſand but if you let the ſteeple come ſouthward the buſh, you ſhall ſurely ſtrike upon the foreſayd tayle. Northward of the Tarweſand is it deepe, upon which you may ſayle in the old Maes even to Dort, therein lye alſoo two buyes, hee who will run upon the foreſayd Markes of the Rotterdams ſteeple and the buſh of trees, ſoo long till the ſteeple of the Briel comes together with a tile houſe, which ſtands upon the ſouthſide of the caſt end of Roſenburg, and keepe that ſo ſtanding, ſoo ſhall hee not miſſe of the buy. Beeing paſt the old Maes wee ſayle in the midſt of the water beyond Vlaerding, till wee come to the five ſluces, from thence you muſt chuſe thee ſouthwall, and run alongh neare unto it; till you come over a ſmall ſand or bancke, where with low water there is 11 or 11 and a halfe foote water, how nearer you keepe to the ſouthwall ſo much the deeper it is, ſtretching croſſe the Maes, aſſoone as you are paſt that, ſoo keepe ſtraight to the Schiedams head, there haven you the deepeſt water.

The olde Maſe.

Tarweſand.

Will you ſayle to Delfs-haven (beeing paſt Schiedam) keepe the ſide of the northwall, and run along thereby till you come before the haven and anchor there. But if you will goe for Rotterdam, run along the Northwall, ſo long till Ouwerſchie and the houſe of Spanjen, come together, ſtrike then over, or a little ſooner to the ſouthwall, and alongſt thereby, or bring the ſteeple of Vlaerding, when you are paſt the head of Shiedam over the third houſe upon the Schiedams head, keepe that ſo ſtanding, ſo long till the Mill and the head of Charlois (upon which ſtandeth a little buſh of trees) come together, you ſhall leave a litle dry plate lying halfe way betwene Schiedam & Delfs-haven on your larboard, & ſo run ſouthward of the dry platt under the haven. Upon this platt lyes no more then 7, and upon the bancke neare the haven 2 or 3 foote water, and are both verry ſteep. Now when thee foreſayd Mill and Charlois head come together, ſoo keepe them ſtanding till you come neare the new head of Rotterdam, ſayle then to the Citty, and there along cloſe in betweene the Citty & Platt, there may you caſt anchor.

Delfs-Haven.

How you ſayle the Maes in with a northerly winde.

But if you will ſayle the Maſe in with a Northerly winde you muſt keepe, the upperwall that ſoo you may have the ſmootheſt deepeſt water, for by the Northwall there goes in a depth where a full foote of water and more, is then by the buyes above written and is called Everſkil. To reach this, you muſt bring the outermoſt beacons in the Brill and keepe it ſo ſtanding, till wee bring two buſhes of trees on the North ſide eaſt of it, that is about a goteling ſhot northwards the uttermoſt Buy, bringing the moſt northerley buſh in with the Delfs ſteeple ſo are you then on the northſide of Everſkil, and the ſoutherley buſh to the Lier then are you on the ſouth ſide of Everſkil, then keepe ſoo long betweene both till you bring the ſteeple of the Brill betweene both the beacons (then are you right over againſt the Hompel) then run againe to the land of the Briel either to the pit or the abovementioned Southergat.

The Goerees-gat.

Betwixt the land of the Brill and Goeree, goe in alſoo two channells, the northermoſt is called the Quacks-deep, and is not for great ſhips, but onely for ſmackes, and ſmall ſhippes: the other is the Goerees-gat. Betwixt theſe two channells lyeth a great plate, called the Hinder, which at water is not deeper then five, ſixe, and ſeven foot. To the northwards of it goeth in the Quacks-deepe, and to the ſouthwards of it the Goerees-gat.

Quacks-deep.

For to finde the Quacks-deepe comming in out of the weſt, you muſt keepe the ſteeple of the Brill eaſt from you, and run ſo in, untill that a great country houſe, (which you ſhal ſee ſtand alone a little within the poynt of the Quacke) come to the ſouthermoſt ſand-hills of the land of the Brill, which ſhal then ſtand neare about ſouth eaſt from you, keep that then ſo ſtanding, and runne ſo right in, untill that Ooſt voorn come to the weſtermoſt or ſouthermoſt ſand-hills, then runne in alongſt by the ſtrand ſomewhat more ſoutherly, untill that Goeree com to the eaſtwards or within the ſand-hills, and then you ſhall bee paſt the eaſt poynt of the Hinder, which the Pilots call the Buyen, runne then towards Goeree, or to the eaſtwards, to Hellevoet-ſluce, where you deſire to be.

Goe-rees-gat.

For to ſayle in at the Goerees-gat, you muſt bring the ſteeple of Goeree, and the Cape upon the land of Goeree, one in the other, and then they ſhall ſtand eaſt and by ſouth, and eaſtſoutheaſt from you: or if you can not ſee the cape, then bring the ſteeples eaſt and by ſout, or eaſtſoutheaſt from you, according as you ſhall have the winde, ſayle in right with it, untill you come hard aboord the ſtrand, and within a bawles caſt in alongſt by it, eaſt and by north, & eaſt in, ſo long untill that the land doe ſal away more to the ſouthwards: thereabouts runneth of from the ſhoare a little tayle which men might ſayle within, in going out, but not in comming in, there you muſt edge a little further of from the ſhoare, being paſt that, luffe up againe towards the ſhoare, or haven of Goeree, & anchor there before it, or els if you will run up to Hellevoet ſluce, then bring the mill which ſtandeth to the weſtwards of Goeree, a little to the northwards of the ſteeple of Goeree, keepe then ſo ſtanding, & ſayle ſo up to Hellevoet-ſluce, & you ſhall not come neare the plate which lyeth over againſt or to the ſouthwards of Hellevoet-ſluce.

When you ſayle in at the Goerees gat with a bare ſoutherly winde, & that you can not bring the cape & ſteeple one in the other, you may bring the ſteeple well e. ſ. eaſt, or a great capſtane bars length to the northwards of the cape, & then run over untill you come againſt the ſtrand, and ſo you ſhall runne over the tayle of the Hinder in 14 & 15 foot at low water, but when the cape & ſteeple are one in the other, you ſhall not have leſſe then 19 or 20 foot. Being come over the tayle of the Hinder, in the right deepe, it is, 6, 7, & 8 fathom deepe, the neerer the ſtrand the deeper water. A little within the cape, or almoſt thwart of it, is the narroweſt of the channel further in it is wider, on henſide towards the Hinder, it is riſing ground, but the ſouth ſhoare a longſt by the ſtrand is very ſteepe.

Of the Tydes & Courſes of the ſtreams, about theſe foreſayd places.

UPon the Wieringer-flat maketh full ſea a ſoutheaſt or northweſt Moone.

Before Teſſel, in Coopvaerders road, an eaſt ſoutheaſt, & weſtnorthweſt Moone.

Without the grounds or ſhoals of the Teſſel, an eaſt & weſt Moone maketh the higheſt water, and in the entring of the Teſſel, an eaſt & by ſouth, & weſt and by north Moone, but the flood goeth a good while longer in. And likewiſe runneth the ebbe alſo longer out, then the loweſt water. When the Moon is ſouth, or ſomewhat more weſterly, it beginneth apparantly to flow without on the ſtrand, and likewiſe upon the ſhoals.

The foore-flood, and the after-ebbe out of the Teſſel, fall both one with the other north n. e. thwart over the grounds and channels, and right out at the Spanjards channell, untill halfe flood: &c. to the contrary, the fore-ebbe, with the after-flood fall right in at the Spanjards channell ſ. ſ. eaſt over the ſouth grounds, and thwart over the Slenk and the other channells, untill half ebbe. A little while before half flood, the flood beginneth to runne right in at the channell, and againe a little before half ebb, the ebbe beginneth to fet right out at the channell. Therefore hee that wil ſayle into the channells, muſt reckon his tydes very wel, where in conſiſteth very much. Without before the channell in the ſea, the tyde turneth about with the Sunne, ſo that when a ſhippe doth lye at an anchor without the channells, & hath neither good nor hurt of the wayes of the ſea, it ſhould have but a little ſtill water.

In the North Sea the tyde falleth round, more then halfe tyde, upon the Broad fourteene, it turneth about with the Sunne or the Moone, and falleth but a quarter tyde right alongſt the ſea. Nearer the coaſt of Holland & Zealand, the tyde falleth (whether it be flood or ebbe) ſomewhat ſloping towards the land, but in the midſt of the tyde, it falleth right alongſt the ſea, and in the laſt of the tyde, it ſetteth to ſeawards, towards the weſtwards or the northwards.

Betwixt the Marſdeepe and the Maes in the fareway, the fore-floot commeth out of the north ſea, and turneth about with the Moone, falling towards the land north-eaſt, & n. eaſt and by north.

The Fiſhermen of the Maes ſay, that when they are out of ſight of the land, they can perceive in calme weather by the turning about of the tyde, they be to the northwards or to the ſouthwards of the Maes. Somwhat to the ſouthwards of the Maes, the after-flood turneth about againſt the Sunne, but to the northwards of the Maes, it turneth about with the Sunne, untill the laſt quarter, and then it ſetteth towards the ſhoare, or the coaſt next unto it. They ſay alſo, that alongſt the coaſt of Holland, men have no helpe of the ebbe in turning to windwards towards the Maes, except they bee without ſight of the land, becauſe there goe no ebbes by the land when the wind is to the ſouthwards of the weſt.

Before the Maes a ſ. w. and by weſt, and a n. e. and by eaſt Moone maketh a high water.

Before the Brill a ſ. w. and ſ. w. and by ſouth, & north-eaſt, & n. e. & by n. Moone.

Before the old Maes a ſ. w. and n. e. Moone.

Before Rotterdam a ſ. w. & by weſt. & n. e. & by e. Moone.

Before Dordrecht a weſt ſouthweſt Moone.

In the Goerees-gat, and before Goeree, a ſ. w. & by ſouth, and ſ. ſ. w. Moone.

Before Hellevoet-ſluce a ſ. w. and by ſouth Moone.

Betwixt the Marſdeep and the Maes in the fareway, the fore-flood commeth out of the north ſea, & turneth about by little & little n. e. & n. e. by north towards the land.

In the

In the ſea thwart of the places, (without ſight of land) is a poynt, or a poynt and a halfe later full ſea, the further from the land the later.

Nod very longh after that the flood beginneth to go without the Maes, it doth begin alſo to go into the Maes but the after-flood falleth ſtrong in, and ſo likewiſe in the Goerees-gat. Cloſe be foore the channels by the land, the tyde turneth about with the Sunne, ſo that when the after-flood falleth into the channels, it turneth to the ſouthwards, and becommeth againſt a running ebbe: the after-ebbe falleth againe thwart off to ſeawards out of the channels.

Of te depths & grounds about theſe places.

Five or ſixe leagues without the Teſſell, lyeth the broad fourteens, lying from thence n. eaſt with a ſmall tayle which lyeth about north from the Teſſel, and n. w. from the Flye, to the ſouthwards it runneth with the eaſt ſide againſt Catwyck or Scheveling, but the weſt ſide lyeth off at leaſt 11 or 12 leagues thwart off to ſeawards from Nortwyck and Catwyck, it is a banck moſt of fourteen fathom deep in ſome places ſomewhat more or leſſe. Betwixt it & the land it is againe 18 and 19. and to the northwardes 20 fathom deep. When you come over it about the Teſſel or the Flye, and come againe in 16 or 17 fathom towards the land, then you ſhall begin to ſee the land.

There runneth of to the ſouthwards into the ſea from the coaſt of Holland 3 ſmal Banckes or ribbes, which are ſomewhat broad & ſhoale by the land, & run off ſharp & deepe to the end, the firſt the fiſhermen call the Smaleight, & beginneth a little to the ſouthwards of Egmont upon the ſea: the ſecond the Wtterrib thwart of Wyck upon the ſea: the third and ſouthermoſt the Hard, a little to the northwards of Santfoort.

The high ſteeples of Holland and Weſt-Frieſland, as Egmont-within, Wyck upon the ſea, Santfoort and further more, men may ſee before they can ſee the ſand-hils five leagues without the land, in 14 or 15 fathom, that is upon the ſouth end of the Broad-fourteenes, but Camperdownes, and the ſand-hills thwart of Haerlem, they may ſee before they can ſee ſome of the ſteeples. The ſteeples alongſt the coaſt are moſt of them flat, except the Beverwyck, Schevelingen and Santfoort.

Before the Maes and Goeree men may ſee the land in 14 and 15 fathom.

Courſes and Diſtances.

From Teſſel to the Maes, ſ. ſ. w. 24 leagues.
From Teſſel to the Heads, or the Strait between Callis and Dover, ſ. w. ſomewhat ſoutherly 52 leagues.
From Teſſel or Marſdiep to Callis cliffe ſouthweſt and by ſouth 52 leagues.
From Teſſel to the North foreland ſ. weſt ſomewhat weſtwardly 47 leagues.
From Teſſel to Orfordneſſe w. ſ. w. 37 leagues.
From Teſſel to Yarmouth weſt, and weſt and by ſouth 34 leagues.
From Teſſel to the Shield, or Cromer weſt. 40 leagues.
From Teſſel or Marſdiep to Flambrough head weſt northweſt 60 leagues.
From the Marſdiep to Lieth in Scotland n. w. and by weſt ſomewhat northerly 104 leagues.
From the Marſdiep to Newcaſtle w. n. weſt ſomewhat northerly 83 leagues.
From Teſſell to Bockeneſſe northweſt, and n. weſt and by n. ſomewhat weſterly 123 leagues.
From the Marſdiep to Aberdine n. w. ſomewhat northerly 119 leagues.
From the Marſdiep to the Liet of Berghen in Norway north 110 leagues.
From the Marſdiep to the north end of Hitland n. n. weſt. 165 leagues.
And then you ſhall fall about five leagues to the eaſtwards of the land.
From the Marſdiep to the Naze n. and by eaſt 94 leagues.
From the Maes or Goeree to Dover, ſouthweſt and by weſt ſomewhat weſterly 33 leagues.
From the Maes to the north Forland, weſt ſouth weſt weſterly 31 leagues.
From the Maes to the Naze, weſt 31 leagues.
From the Maes to Hitland north north weſt 180 leag.

Heights.

The Marſdiep lieth in three and fifty degrees, ſaile out of the north ſea, (being in that height) eaſt on, and you ſhall fall right with it.
The north ſide of the Maes lieth in 52 degrees.

How theſe Lands doe ſhew them ſelves at Sea.



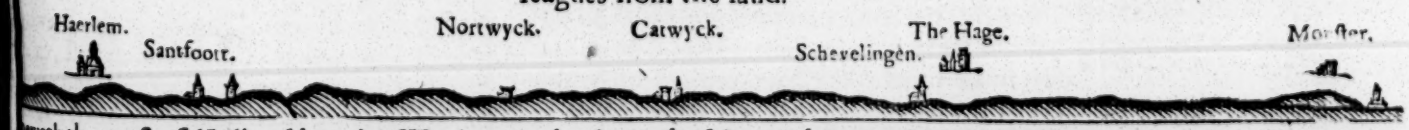
…s appeareth the Iſland Teſſell, when it lieth eaſt and by north from you.



Huyſdowne ſheweth it ſelfe thus, when it is eaſt ſouth eaſt from you.



…us ſheweth the coaſt of Holland betwixt Huyſdowne and Wyck upon the ſea, when you ſayle alongſt by it, about three leagues from the land.



…eweth the coaſt of Holland betwixt Wyck upon the ſea, & the Maes, when you ſayle alongſt by it about a leag. from the land.



Theſe two figures belong to the A A one to the other.

…m S. E. by S.



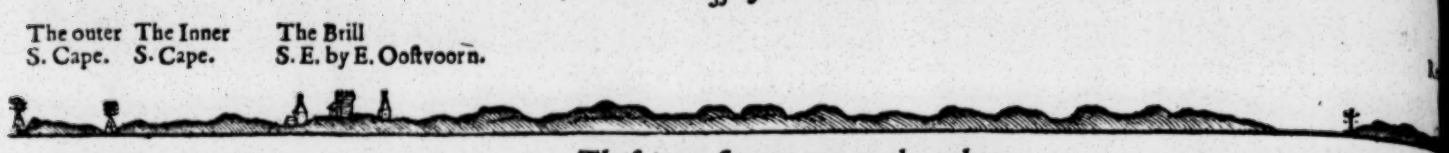
…When Graveſand is ſouth eaſt and by ſouth from you, being a halfe league without the land; then the coaſt of Holland to the northwards of the Maes ſheweth it ſelfe, as is portrayed in the two figures here above.

…de.



When you are open before the Maes, the land to the northwards of it ſheweth it ſelfe thus.

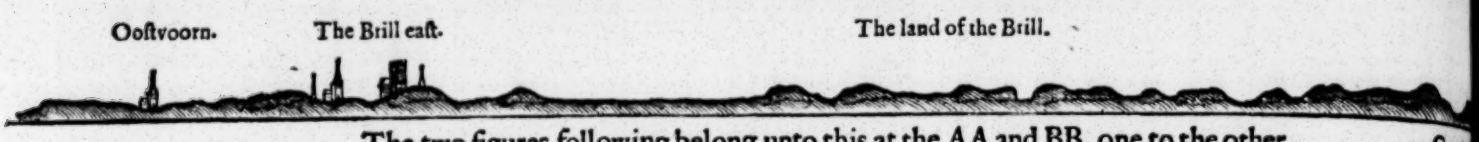
The



Theſe two figures one to the other.



When you are upon before the Maes, being northweſt and by weſt from the Brill, then the land to the ſouthwards of the Ma ſheweth it ſelve, as is prefigured in the two figures here above.



The two figures following belong unto this at the AA and BB, one to the other.

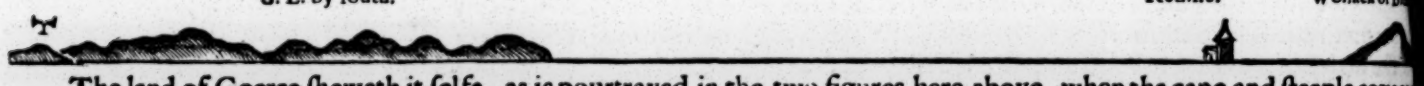




When you are before the Goereeſe gat, about a league without the land on both ſides of it ſheweth, at is demonſtrated in the three figures here above.



Theſe two figures belong at the croſſes one to the other.



The land of Goeree ſheweth it ſelfe, as is pourtrayed in the two figures here above, when the cape and ſteeple come on the other, and that you are a league and a halfe without the land.

The third Demonſtration.

Which unfoldeth

All the Channells betwixt the Maes and the Whielings, as that of Goeree, Brewers-haven, Zierick-zea, the Veer and the Whieling.

CONcerning the Situation betweene the Maes and Goerees-gat, wee have handled ſufficiently in the deſcription of the River Maes. Betwixt the land of Goeree & Schowen there goe in alſoo two channels, the norther moſt is called the Kevitſen, (which is onely for ſmall ſhips) the ſouthermoſt for great ſhips is called the Brewers havens channell, betwixt them lyeth a great dry ſand, called the Springer, which floweth not under, but with very high floods.

Kevitſen. For to finde the Kevitſen, you muſt bring the ſteeple of Zierick-zee ſoutheaſt and by ſouth, or a little more ſoutherly from you, and then you ſhall eſpy upon the land of Schowen, about the ſteeple of Zierick-zee, a wood of trees, bring that and the foreſaid ſteeple of Zierick-zee one in the other, and runne ſo right in untill you come againſt the ſand, ſo ſhoaler ſo neare as you can, and then you runne farre enough alongſt to the weſtwards of the weſt head. When you come within the weſt head, againſt the ſand on the ſouth ſide, then goe in eaſt alongſt by the foreſaid dry ſand the Springer, at the end of the a foreſaid dry ſand ſhooteth off alſo a point under water, the which you muſt ſound for: being paſt that, runne the directly with Brewers-haven as is ſhewed in the Card. In this channell it is upon the ſhoaleſt ten foot deep.

The Brewers-Haven.

Before the land of Schowen, thwart of the Brewers-haven channell, lye three banckes, the outermoſt, called the Breebanke, lyeth a kenning without the land, upon which it is a 7 fathom deep, and againe within it, 19 fathom deep, upon the ſecond nearer the ſhoare, it is five fathom deep, and againe within it 7 fathom deep; the third called the Ooſter, lyeth cloſe by the Land, and runneth unto the eaſtwards, betwixt Schouwen and the land of Goeree, upon it is no more then ſix foot water, when you will ſayle into the channell of Brewers-haven, you muſt goe about to the weſtwards of it.

Upon the weſt end of Schouwen ſtand two Capes, bring them one in the other, and runne ſo right in with them; untill the ſteeple of the Reniſſe (which ſteeple is ſomewhat ſharpe) come to the Blenck or Wolſack, that is, a high white ſandhill, (which ſheweth it ſelfe out in whiteneſſe high above all the other Sand-hills) then leave the Capes, and runne in by the marks of the Blencke and

Den Briel
t Lant
van Vooren
Quack
Melissant
Duveland
Bommenee
T LANT
Ziericzee
Brouwershaven
Goe ree
t Lant van
Goeree
Outdorp
Nolle
VAN
SCHOW:
VEN.
Springer middelhil
Keel

De Cust van
ZEELAND,
Begrypende in sich de Zeegaten
van de Wielingen, Ter Veere, Zierik-
zee, Brouwers-haven, Goeree
en de Maes.
t'Amsterdam.
By Iacob Theunisz op
t'water inde Lootsman.

Duytſche mylen 15 in een graet-

Spaenſche mylen 17½ in een graet-

Eng: en Fra: mylen 20 in een graet-

Lant van

Cats

Kotgeen

Westkercke

Sluys

Armuyden

Ter Veer

Middelburg

Oost Souburg

West Souburg

Vlissingen

Retten

Breskens

Gaete

VLAEN-
DE-
REN

WALCHE-
REN

Coukerke

Dieselhoek

Inneraumen

Beckercke

Oostcapel

Soutelande

Domburg

Buyens kercke

Westcapel

Cadsand

S. Lambert

Risjoens

Oost Gat

Steen Diep

De Put

De Oost Put

Den Helder

and Reniſſe, untill that Outdorp, (a little white ſteeple upon the Land of Goeree) come to the ſteeple of Goeree, and ſo you ſhall goe in betwixt the Ooſter of the larboard ſide, and the Hill on the ſtarboard ſide, and alongſt a little to ſouthwards of the outermoſt buy, untill you come within the Ooſter. When that Outdorp & Goeree are one in the other, then leave alſo the foreſayd marckes of Reniſſe, and runne in right with Goeree, untill that you come by the ſecond buy; or (if there lye no buyes) untill that the Bommenee come a little without the Oxetayle, that is a poynt of Schowe, lying out a little to the weſtwares of Brewers-haven, ſayle ſoo right in untill you are paſt the Brewers-haven. This Channell of Brewers-Haven, is a broad and deepe Channell, very convenient for great ſhips, he that muſt turn in or out to windewards, may runne alongſt a good wayes on both ſides, as well of the outermoſt as of the ſecond-buy, but to the ſouthwards of them it is deepeſt, and the comman fareway. The third buye is a buy with a tayle, and lyet upon a poynt of a tayle, which off from the Ooſter, which you may not goe to the northwards of, until it were very cloſe alongſt by it: all alongſt by the ſtrand of Schowen, it is deepe and ſteepe, you may runne cloſe by it from the outermoſt buy unto Brewers-Haven, there is nothing that can hurt you, the ſhoaleſt of this Channell is eighteen or nineteene foot; at leaſt a league without the land in the comming in betwixt the Ooſter and the Hill. Further inwards it is foure, five, ſix and ſeven, and at ſome places ten and eleven fathom, as it is ſhewed in the Card by the numbers of feet, and all at low water.

The Keel, the Newdeep, the Velt, and the Roompot.

You may run into Zierickzee trough divers channels, trough the Keel, the Newdeep, the Velt, & the Roompot. For to ſayle trough the Keel, then run in as is before ſayd of the channell of Brewers-haven, firſt in by the marks of the Blench and Reniſſe, ſoo long untill that Ter-Veer come to the weſtermoſt point of ſchowen, called the Hoot, keepe them one in the other, or to the other, & run ſoo in untill you come by the ſtrand, & then forth by it, & you ſhal find ſo in the Keel at the ſhoaleſt 18 and 19 foot, and comming againgſt the point of the Hoot, foure and five fathom. Betwixt the Hoot and the Newſand (which falleth at the eaſt end in ſome places dry) run all alongſt by the land of Schowen, untill you come thwart of the ſouthermoſt cape of Schowen, edge ten ſomewhat off from the ſhoare towards the Baniard, for to avoid a Share which lyeth of from Schowen, which you might ſayle within when you come out of the ſea. There liet a buy upon the point, whereby it is eaſy to be known: being paſt that, run all alongſt by the ſhoare, untill you come to Zierickzee: ſomewhat within the buy, upon the point of the ſhare, there is lately layd another little buy for thoſe that wil ſayle that wayes out, for that they may not ſayle upon the eaſt ſide of the foreſayd ſhare.

For to ſayle in at the New-deepe, you muſt looke out for two ſtone fire-beakons, ſtanding a little to the ſouthwards of the foreſayd Capes of the Channell of Brewers-Haven, bring the innermoſt a handſpikes length to the ſouthwards of the outermoſt, and runne then right in with them, and then you ſhall runne in betwixt the Hill and the Newſand in ſixteene, ſeventeene, and 19 foot, goe in alongſt by the foreſayd markes, untill that you come by the ſtrand, and then you come into the Keele. If you bring the fire-beakons one in the other, & ſayle ſo right in, you ſhall then runne over the tayle of the Hill in eleven or twelve foot. The Hill is a land ſomewhat flat, which men may come neare to the ſouth ſide by their lead, but the Newſand is very ſteep, and the ſea breaketh very much upon it. When as you come in by the ſtrand into the Keel, then run in alongſt by the ſtrand, as is before ſayd in the deſcription of the Keel.

For to ſayle in at the Velt, you muſt obſerve theſe marcks here under deſcribed: almoſt upon the ſouthermoſt end of Schowen ſtandeth a Tower alone in the field, with a cape upon it, called Weſt-Schowen, bring that Tower a capſtane barres length to the ſouthwards of the foreſayd ſouthermoſt cape of weſt-Schowen, and runne ſo right in, and then you ſhall runne trough betwixt the Newſand and the Baniard, and ſhall finde upon the ſhoales (thwart of the outermoſt poynt of the Newſand) twelve and fourteene foot; being paſt that, there will be againe fifteene, ſixteen, and eigteen foot, and by the ſtrand twenty foot deep. When you come in by the ſtrand, runne all alongſt by it untill you come even to Zierick-zee, as here before is ſayd of the Keel, and Newdeepe. When you runne in at this channell, you muſt take very good heed of the Banjard, which is very ſteepe upon the north ſide; cloſe to it, there is three, foure, and five fathom, but thwart of the foreſayd ſtrand which lyeth of from Schowen, ſixe and ſeven fathom deep. The New-ſand is indifferent flat on the ſouth ſide, that you may borrow of it by your lead. The Velt.

The Veer-gat.

For to ſayle in the Veer-gat (comming from the northwards) you muſt keepe Weſt-cappell not to the weſtwards of ſouth from you, and then you cannot come to neere the Banjaer: but if you bring Weſt-cappel to the weſtwards of the ſouth from you, you ſhould lightly ſayle upon the Banjaert, runne ſo right with Weſt-cappell, untill that Middelbrough come over Eaſt-cappel, then you are to the end of the Baniaert, ſayle then right with Eaſt-cappell and Middelbrough, untill that Cortgeen come trough or a great capſtane barres length to the ſouthwards of Weſt-kercke, they are two Towers ſtanding in the ſuncken land, and ſhall bee then about eaſt ſoutheaſt from you, keepe theſe Towers ſoo ſtanding, and run in ſo right with them, and you ſhall runne in ſight of the firſt buy of the Veer-gat. In the Veergat lye three buyes with two bottomes, of faſhion like great Hogſheads, which you muſt leave all on the ſtarboard ſide. Before you come to the firſt buye, you ſhall ſayle by another buye on the larboard ſide, lying upon the poynt of the Polle, which is a poynt of the Baniaert, that is, a Peare buye, of faſhion like al other ſeabuyes that lye in the Maſe or elſwhere. The foreſayd firſt buy in the Veergat lyeth in three fathom and a halfe. From the firſt to the ſecond and third buye, the courſe is ſoutheaſt and by eaſt, or ſomewhat more ſoutherley, but you may eaſily ſee from the one to the other. The ſecond and third buyes lye in two fathom, each upon a poynt of a plate, called the Maide. Over againſt the third buye lyeth a ſhoale called the Unreſt, which lyeth with a long ſharpe poynt towards the third buye, ſoo that it is not there very broad betwixt them, therefore you muſt runne cloſe alongſt to the northwards of the buye: betwixt the buy and the foreſayd poynt of the Unreſt, it is not deeper then twelve and thirteen foote, but twhart of the firſt & ſecond buye, it is broad and deepe enough. Being paſt the third buy, ſayle then right to Ter-Veer. Over againſt Ter-Veer lyeth a plate, called the Scotſman, which you have onely to avoyd.

Markes of the Baniaert. The Polle. Maide. Unreſt.

If you will goe in at the Roompot to Zierick-zee, and that you are come betwixt the foreſayd Peare buy upon the poynt of the Polle, and the firſt or outtermoſt buy of the Veer-gat, then commeth Domburgh to the Hoot, which is a white ſand-hill upon Walcheren, allmoſt of faſhion like the Woolſackes upon the land off Schowen: keepe them one in the other, and you ſhall runne alongſt by two buyes more, which ſhall lye on the larboard ſide alongſt by the Polle, and you ſhall ſee one buye with a tayle lying upon the weſt poynt of the Wool-plate, over againſt the third buye of the Polle: betwixt theſe two buyes you muſt run through, leaving that with the tayle on the ſtarboard ſide, & tunne about by it to the eaſtwards. There lye alſo two buyes with tayles, (beſides the foreſayd) upon the Wool-plate, you may eaſily ſee from one to the other,

For to ſayle in at the Roompot. Wool-plate.

theſe you muſt leave on the ſtarboard ſide,& runne alongſt to the northwards of them, about eaſtſoutheaſt on, ſo long till the ſteeple of Koukercke (upon Schowen) come even without the poynt of Schowen, runne then in right with that poynt, & about by it, and then alongſt by the ſhoare unto Zierick-zee. When as you runne towards the poynt of Schowen, then you ſayle through betwixt two buyes more, the one lying on the ſtarboard ſide, upon the eaſtermoſt poynt of the Baniart, or Hooghplate, and the other with a tayle on the ſtarboard ſide, upon the poynt of another plate, called Poolvoet, lying betwixt the land of Schowen and Oreſand. All the buyes with tayles men muſt leave (in ſayling in) on the ſtarboard ſide, & thoſe without tayles on the larboard ſide.

The Fiſhermen runne (by day) moſt about to the ſ. wards of the Poolvoet-plate, and leave the foreſayd buye with the tayle, then on the larboard ſide; that plate is ſomwhat flat, that men may borrow off it by theyr lead, but they muſt ſound quick: but by night they run by Schowen cloſe alongſt by the ſhoare, which is exceeding ſteepe and needle too.

The Channell betwixt the Iſland Walcheren and Flanders, hath divers deepes, and channells, where men may ſayle in and out through with great ſhippes, as the Bot-kill, the Doorloye, the Splete, and the Wieling. It is commonly called after one of the chiefeſt of the ſame, with the name of the Wielings. The greateſt ſhoales, betwixt which theſe foreſayd channells doe runne through, are: The Raſſes, the Raen, the Engliſh Polle, and the Inner-banck. The Raſſes lye alongſt the weſt ſide of Walcheren: The Raen to the weſtwards of it: The Engliſh Polle betwixt them & the coaſt of Flanders, lying of to the weſtwards with a long ſmall, ribb unto thwart of Ooſtend. The Inner-banck lieth betwixt the eaſt end of the Engliſh Polle & Caſand, which is alſo called the French Poll or the Kipt.

The Raſſes. The Raen. The Engliſh Poll. The French Poll.

The Bot-kill.

For to ſayle out at the Bot-kill, you muſt run from Fluſhing within two Cables lengths alongſt by the ſhoare, through betwixt the land and the Geer and the Raſſe, the ſhoare is very ſteepe, ſoo that men may come cloſe by it with great ſhippes without any danger, the Raſſes are flat on the eaſt or the inner ſide towards the land. To the eaſtwards, or to the ſouthwards of Souteland in that fareway it is 5 and 6 fathom deepe, but to the northwards, or to the weſtwards it is deeper, and thwart of Weſt-cappel 8 & 9 fathom. When the Church of Weſt-cappel (which hath a flat ſteeple) cometh over the mill, thwart of that runneth a channell through betwixt the n. and e. Raſſes w. ſ. weſt into the ſea where remaineth at low water no leſſe then two fathom water, keepe Weſt-cappell & the foreſayd mill one in the other, & runne out ſoo by them. When Buyes Church commeth over the foreſayd mill of Weſt-cappell, then keepe them one in the other, and you ſhall runne then right out at the Bot-kil through betwixt the n. Raſſes on the larboard ſide, and a ſand called Calloo on the ſtarboard ſide. In the Bot-kill is not leſſe then 4 f. & a halfe depth, but upon both the Raſſes remaineth at low water, no more then 2 foot and a halfe, and upon Calloo 3 or foure fathom.

Markes of the Botkil.

To the northwards of the ſand Calloo lyeth yet a plate called the Quernes, lying northwards allmoſt untill thwart of Domburgh, betwixt them both is a channell of foure or five fathom depth, called the Eaſter-gat; For to ſayle out there, or to finde it comming in out of the ſea, you muſt bring Weſt-cappell to the northermoſt head, which is a head very good to be knowne, and run out in or thereby. Betwixt the Quernes and the land goeth out yet a Land-deep of three fathom & a half. For to find that comming in out of the ſea, you muſt runne to the ſhoare, thwart of Domburg (which is a ſharpe ſteeple) into 3 fathom, or 2 fathom and a halfe, & keepe de ſounding of the ſhoare ſo neare as you pleaſe, and runne in ſo alongſt by the heades, untill you be come within. When you come in at any of theſe channells, and are come ſoo farre to the eaſtwards, as betwixt Buyens Church and Soutland, and that you muſt turne to windwards with an eaſterly wind, then you may ſayl through betwixt the eaſter Raſſes, and the plate to the weſtwards of it, called the Geere, and ſoo come out in the broad channell into the Doorloy and Splete, and run ſo about to the ſouthwards of the Geer unto Fluſhing.

Querne.

Land-Deep.

About 2 leagues without the land of Walcheren lyeth a long ſmall bank, lying ſ. w. and n. eaſt, called the Stone-bank, upon the middeſt where of there is no more then 2 fathem, and upon the nord-end of it 3 fathom water. He that wil ſayle in or out at the Botkill, or the channells to the n. of it, the Eaſtergat or Land-deep, muſt ſayle about either to the northwards or to the ſouthwards of that Stone-banck: When Middleburgh commeth over Domburgh, then are you thwart of this Stone-banck, but if you bring Middleburgh half waies betwixt Domburgh & Eaſt-cappell, & ſo ſail to the land, then you runne along to the northwards of it. Or els if you bring Weſt-cappell e. ſ. e. from you, in a black valley of the ſand-hills, and ſayle ſoo right in, then you runne alongſt to the weſtwards or the ſouthwards of it. Within the Stone-banck it is againe 8 or 9 & at ſome places 10 fathom deep. Upon the foreſayd marks & courſe, to wit, Weſt-cappel eaſt ſoutheaſt from you in the black valley, you may ſayle right in at the Bot-kill: when that Eaſt cappell commeth then ſomewhat through Domburgh or to the eaſtwardes of it, then you ſhall get deeper water, goe then towards the ſhoare, & ſoo alongſt by it, as is before ſayd. A little from the ſouthweſt end of the Stone-banck lyeth yet another, but it is not long, called the Oyſter-bank, upon it remaineth at low water about 4 fathom water.

Markes of the Stone-bank.

Oyſter-banke.

The Doorloy.

For to ſayle from Fluſhing out at the Doorloy with ſhips that draw much water, you muſt ſet ſayle when the water is flowed an houre or two, for to come with halfe flood, or againſt the higheſt water to the ſhoales, goe from Fluſhing firſt alongſt by the ſhoare, and then weſtnorthweſt, untill that Weſt-cappel come within two ſhippes length to the poynt of tho Sand-hill, to wit, that Weſt-cappel ſtand ſoo much within the weſt poynt of the Sand-hils, bring that alſoo not further out, not neerer to the poynt of the Sand-hills, for els you ſhould ſayle upon the Raen. When that Weſt-cappel ſtandeth ſoo, and S. Anne (a flat Steeple in Flanders to the weſtwards of Sluce) ſtandeth amongſt the eaſt Sand-hills of Caſand, then goe northweſt and by weſt out at the Doorloy. When that S. Anne commeth then to the weſtwards of that foreſayd Sand-hill, then commeth the Caſtle of Sluce, under or behinde that Sand-hill, keep that under, or right to the eaſt ſide of the foreſayd Sand-hills, and then goe out northweſt and by weſt, and you ſhall goe cleare of the Raen and the Raſſes. If you bring Weſt-cappel without the Sand-hills before that Saint Anne come without the forofoyd Sand-hills of Caſand, then you ſhall be to farre to the northwards, and to neer the Raſſes. Or if you bring Saint Anne without the Sand-hills of Caſand, before Weſt-cappell come to the end of the Sand-hills, then you ſhall be to farre to the ſouthwards, and ſhall come againſt the Raen, but when you bring Weſt-cappell to the poynt of the Sand-hill, and Saint Annes without the Sand-hills of Caſand one as ſoone as the other, then you are amid the channell of the Doorloy right in the fareway.

For to find the Doorloy comming in out of the ſea, you muſt run to the Raen by the lead, untill that Weſt-cappell come within a maſts length neere to the Sconce, and ſayle ſoo right in, or take the ſounding of the Raen, and run alongſt by it, untill that S. Anne come to the foreſayd eaſt Sand-hill of Caſand, then goe in alongſt ſouthe, and by eaſt, and you ſhall ſoon be over the ſholeaſt, and find deeper water, but you muſt reckon wel your tydes,

For to finde the Doorloy comming in out of the ſea.

for

for the floot falleth in to the Doorloy firſt ſouth (as alſo the after-ebbe) afterwards ſouthſoutheaſt and ad leaſt to the ſouthwards. Therefore if you will goe in at the Doorloy with a fore-flood, you muſt go at leaſt eaſtſouth-eaſt, or els (if you ſhould goe in upon your direct courſe) you ſhould lightly be carried againſt the Raen. Comming then out of the ſea alongſt by the Raen, untill that S. Anne be hidden amongſt the ſand-hils of Caſand, then goe on eaſtſoutheaſt, untill that Weſtcappell come within the poynt of the ſand-hils, and then run boldly right on with Fluſhing. In darke weather men may ſound alongſt by the Raſſes; when that you keep the Caſtle of Sluce to the eaſtwards of the foreſayd ſand-hill upon Caſand, then you cannot take hurt of the raen, but when the Church of Sluce ſtandeth to the weſt ſide of the foreſayd ſand-hills, then you are thwart of the ſhoaleſt of the Raen.

The Splete.

For to ſayle from Fluſhing out at the Splete, you muſt goe on firſt (as is before ſayd) weſtnorthweſt, untill that Weſt cappell come almoſt to the poynt of the ſand-hils, but not without it, or that the ſteeple of Middlebrough come to the Inner ſand-hill, then goe weſtſouthweſt, and then you run out at the Splete, which is more then a great halfe league broad, and at low water upon the ſhoaleſt 4 fathom and a halfe deepe. Betwixt Soutland and Diſhoeck lyeth a high ſand-hill, which is at the eaſt end ſomewhat ſteeple, called the Doorne-hill, to the eaſtwards of it lieth another ſand-hil, which is ſomwhat long, not altogether ſo high as the Doorne-hil, with a clift or little dale in it, which doth (as it were) divide the long ſand-hill in two ſand-hills, the ſouthermoſt is called the Inner ſandhill, becauſe that to the ſouthwards of it there are no more high ſand-hils. When that the ſteeple of Middlebrough commeth over that Inner ſand-hil, or in that foreſayd clift, and keepe that over it or in it, then you runne out at the Splete, and can take no hurt neither of the Poll nor the Raen.

The Engliſh Poll is ſteepe, but with eaſterly windes men may borrow of it by the lead. The Raen is flat on the Inner ſide as well as on the out ſide, ſo that men may ſound out alongſt by it all the Splete when you cannot have ſight of the foreſayd markes in dark weather, and it is ſo broad, that men have an halfe houres worke for to ſayle thwart over it, but the Engliſh Poll is ſo narrow, that men may runne over it with foure or five caſts of the lead. When that Aerdenburgh commeth without the foreſayd ſand-hils of Caſand, then you are paſt the drye Raen, but it lyeth yet out to the weſtwards with a great flat, ſo farre to the weſtwards, untill Bridges commeth to the eaſtwards of Blanckenbrough in the Gallow ſherds, which are high ſand-hils to the eaſtwards of Blanckenbrough, where in times paſt was wont a Gallowes to ſtand, then you are paſt all the ſhoales, and may goe your courſe where you deſire to be. Blanckenbrough hath a flat ſteeple ſomewhat higher (but not ſo thick) as Liſwegen.

From the end of the Engliſh Poll lieth a long ribbe (about a ſhot of a caſt peece broad) to the weſtwards, untill paſt Ooſtend, called the Ript, it is hard ſand, and good anchor ground. When Blanckenbrough ſtandeth ſoutheaſt and by eaſt from you, there is upon the Ript at low water ſixe fathom deepe, more to the eaſtwards towardes the Engliſh Poll it is ſhoaler, but the farther to the weſtwards the deeper unto the outerbanck thwart of Ooſtend. A ſhot of a caſt peece to the northwards of that Ript it is deeper, and ſoft ground. Alſo when you come towards the ſouth or ſouthſoutheaſt, a ſhot of a caſt peece over the Ript, it will be preſently a halfe fathom deeper, and ſoft ground, that is, then the other channell of the Wielinge. Therefore when you come out of the ſea, and will ſayle in at the Splete, edge to the coaſt of Flanders, when you are (by your reckoning) paſt Ooſtend, and borrow to it by your lead, untill that you get hard ground, and ſhoaler water, that is then for certaine that foreſayd Ript: having ſound that in ſixe, ſeven, or eight fathom, according as you ſhall be to the eaſtwards or the weſtwards, then edge of againe to the northwards into the ſea, untill it begin to ſhoale, and bee hard ground; keep ſo the ſounding of the Ript untill that you find again deeper water and ſoft ground, runne in then eaſtnortheaſt, and edge now and then to the ſouthwards towards the north ſide of the foreſayd Ript, untill that Bridges commeth to Liſwegen (being a flat and very thick ſteeple) or that Blanckenbrough ſtand ſouth from you, then you come thart of the poynt of the Raen into the Splete. Then bring the ſteeple of Middlebrough over the foreſayd Inner ſand-hill, betwixt Soutland and Diſhoeck, and run in right with it, e. n. e. on, untill that the caſtle of Sluce come to the eaſtwards of the foreſaid eaſt ſand-hills of Caſand, ſayle then right on with Fluſhing, and ſo you ſhall goe cleare both of the Raen & the Pols. If it ſhould happen in darke or miſty weather, that you cannot ſee Middlebrough, then run in by your lead alongſt by the north ſide of the Ript eaſtnortheaſt until that you find ſhoaling and hard ground of the banck, and ſo you ſhal run in betwixt the Raen and the banck. The weſt end of the Raen is flat, which you may ſound very well. In the channel betwixt the banck, or Engliſh Poll, and the Raen, it is ſoft ground on both ſides, as well towards the Raen, as towards the banck, it doth begin to ſhoale, and to be hard ground. Wen Heyſt, that is, a high ſharp ſteeple commeth to the fire-beakon, thwart of that is the banck, or Engliſh Poll at the ſhoaleſt, to the eaſtwards of that, the banck waxeth deeper; Being come paſt the ſhoaleſt, if you edge towards the banck, you ſhall finde deeper water, and may run over there at halfe flood with 18 foot, but it is not good to doe it, for not to ſayl upon the French Poll, but keepe all alongſt the ſounding and hard ground of the banck, an ſhape your courſe a little more eaſterly for to avoyd the Raſſes which lye thwart of Soutland, & are ſteepe. When you are come ſomewhat further in; go then eaſt on towards Fluſhing, & you ſhal not come neare any ſhoals. Thwart through te Raen goeth a Slenck where remaineth at low water, not leſſe then 2 fathom and a halfe water; for to finde comming in out of the ſea, you muſt bring Aerdenburgh a little without the point of the ſand-hils of Caſand, or Weſtchappel in Flanders a little to the eaſtwards of Knock, ſayle then right with it, untill that you get deeper water, or that the ſteeple of Middlebrough come over the inner ſand-hill, & then in alongſt with it. Weſt-chappell in Flanders is a ſhort flat little ſteeple, with a little ſhort blunt ſpire, or cap upon it, but Knok is a ſharp ſteeple not ſo high as Heyſt.

Slenck through the Raen.

The Wielinge and inner-Wielinge.

For to ſayle in at the Wielinge comming in out of the ſea you muſt run on to the coaſt of Flanders, (when you are paſt Ooſtend) untill you come in 5 fathom. Thwart of Blanckenbrough there was wont a few yeare paſt, to lye a bancke or ſhoare off from the ſhoare, which men might ſayle within, comming from the weſtwards: now there is nothing but a little flat, and Dobbelſand is alſoo altogether cleane gone. Or elſe you muſt looke-out for Liſwegen a flat ſteeple, and the thickeſt thereabouts. When the ſteeples of Bridges, (being called the Bruggelingen) ſtand a cables length to the weſtwards of Liſwegen, then are you yet to the weſtw. of all the ſands, polles, and banckes, keepe theſe ſteeples ſo ſtanding and runne on to the coaſt, untill you come over the foreſayd Ript, and that you find again ſoft ground, and more depth, untill you come in 5 fathom, go then n. e. and n. e. and by eaſt with a flood, or northeaſt and northeaſt, and by north with an ebbe (reckon wel your tyde, which runneth there moſt e. ſ. e. ſomewhat ſoutherly, and w. n. w. ſomewhat northerly, and the tyde runneth but a little

houre alongſt the land) keep the ſteeple Wenduynen one or 2 ſhips lengths without the Sconce of Blanckenbrough, ſo long as you can ſee them, and ſtil in 5 fathom; when as Heyſt commeth then to Bridges, and Weſtcapel to Knock, then are you right in the fareway of the Wieling, the nearer that you are to the bancke of the Engliſh Poll, the deeper water you ſhall finde, except that you have the ſhoaling of the banck it ſelfe. Bridges muſt come firſt to Heyſt, or elſe you ſhould be to fart to ſeawards, or to neare to the Engliſh Poll; with a fore-flood you may bring them both at once together, but not with a fore ebbe. If you get then ſhoaling, that is, of the Engliſh Poll, goe from thenſe alongſt the ſame courſe, through betwixt the Engliſh Poll and the French Poll, or Innerbanck, that is a hard ſand and ſteep, but the Engliſh Poll is thereabouts flat, which you-may ſound. When as that the caſtle of Sluce commeth to Saint Lamberth (a high flat ſteeple upon Caſand, to the northwards or to the eaſtwards of the Sluce) then you are paſt the French Poll, goe then eaſt on right with Fluſhing, or elſe obſerve theſe markes following: Liſwegen muſt not come within Heyſt, before the Caſtle of Sluce come to the eaſt ſand-hill of Caſand, but remain without it, or elſe you ſhould ſayle on againſt the innerbanck, when as that the Caſtle commeth to the ſand-hill, goe then boldly northeaſt and by eaſt and eaſtnortheaſt, for to avoyd the French-Poll, untill that the ſteeple of Fluſhing come to the northwards of the Priſongate, then you get deeper water: goe then on eaſt, and eaſt & by ſouth right with Fluſhing. There remaineth in the Wieling, as alſo in the inner Wieling at the loweſt water, not leſſe then 4 fathom & a halfe water.

Markes of the French Poll.

The inner-Wieling lyeth in through betwixt the innerbanck, or French Poll, and Caſand. When you come from the weſtwards into the Wieling, and are come ſoo farr, that Weſtchappel come to Knock, and will go in at the inner Wieling, then goe from thenſe eaſt and by ſ. on and you ſhall eſpy the buy upon the poynt of the Paerdmarck (that is, a ſand that ſhooteth off from the eaſt poynt of Sluce haven, and is very ſteep) leave that buy on the ſtarboard ſide, & keepe S. Lamberts ſteeple even without the ſ. ſand-hill of Caſand or Sluce haven, and goe on n. e. or ſomewhat more northerly alongſt by the ſhoare, for to avoyd the Krakeſand, when as then the Caſtle of Sluce and S. Lamberts ſteeple come one in the other, then goe on eaſt right with Fluſhing.

The inner-Wieling.

Krake-ſand.

Flanders is a Land full of ſand-hils and hommocks, with many ſteeples alongſt the coaſt, lying from the Haven of Sluce unto Callice, moſt w. ſ. w. and e. northeaſt. The firſt ſteeple to the weſtwards of Sluce is S. Anne a flat ſteeple, and then Weſtchappell a little ſhort flat ſteeple, with a blunt cap upon it. Heyſt to the weſtwards of them is a long ſharpe ſteeple higher then Knock. Betwixt Heyſt and Blanckenbrough, lieth Liſwegen ſomewhat within the land, that it a flat ſteeple, & the thickeſt of all the ſteeples there abouts. Blanckenbrough is alſoo a flat ſteeple higher then Liſwegen, but not ſo thick. Within the land from Blanckenbrough ſtandeth Bridges, two thick ſharp ſteeples upon one Church, to the weſt wards of Blanckenbrough a great halfe league lyeth Wenduynen a ſharp ſteeple.

Of the Tydes & Courſes of the Streames.

Before Brewers-haven, a ſouthſouthweſt and northeaſt Moone maketh high water.

In the Channell of Brewers-haven a ſouth and by weſt Moone.

At Ter-Veer a ſ. ſ. w. and n. n. e. Moone.

In the Veer-gat a ſ. and n. Moone.

It is not good to runne in at Veer-gat, eſpecially with a ſoutherly or ſouthweſt wind, before that the floot be halfe ſpent, for the after-ebbe, and the fore-flood fall thwart over the Baniaert hard in at the Roompot, towards the land of Schowen, but when the flood is halfe ſpent, then it falleth right in at the Veergat. When the Moone is ſoutheaſt, or northweſt, then the water is there already two third parts flowen.

Like as it is here before ſayd of the Maſe and the Goerees-gat, ſoo alſo here before the channels of Brewers-haven and Ter-Veer the flood turneth about with the Sunne, ſoo that the after-ſtood falleth in the channels, and then afterwards turneth abouth to the ſouthwards, and becommeth a running ebbe, but the after-ebbs fall right out at the channels thwart into the ſea, and then with the fore-flood about againe to the northwards.

Before the Wielings a ſouth and by w. and a ſ. ſ. weſt Moon maketh the higheſt water.

At Fluſhing & Ramekens a ſ. ſ. w. Moone.

At Weſt-chappell on the land of Walcheren, a ſouth and north Moone maketh high water. When the wate is a halfe houre fallen, then the tyde beginneth to fall out there, and when it is flowen a halfe houre, it beginneth to fall in: but before the Botkill it beginneth to goe there firſt an houre before the loweſt water, but it falleth long at ſea. In the Splete, and over the ſhoals lying there abouts, the tyde turneth about againſt the Sunne, and at leaſt falleth in at the channels. A ſouth and north Moon maketh there the higheſt water. The fore-flood falleth over the ſhoals there towards the land. When the Moone is about eaſtſoutheaſt, or that the water bee about two houres flowen, then it beginneth to turne towards the ſouth, firſt ſouthſouthweſt, and then paſt the ſouth towards the eaſt, untill that the Moone be ſouthſoutheaſt, and then the flood falleth to the eaſtwards. When Blanckenbrough ſtandeth about ſoutheaſt and by eaſt from you, from thence to the eaſtwards, the tyde turneth about againſt the Sun, but from thence to the weſtwards, you ſhall not finde the tydes to turne about.

Againſt Zealand in the fare-way a third part of the flood falleto towards the land, and afterwards eaſt and by north. Men may ſee Zealand from the poope in 16 fathom.

Courſes and Diſtances.

From Fluſhing to Blanckenbrough neareſt weſtſouthweſt, 9 leagues.
From Blanckenbrough to Ooſtend ſouthweſt and by weſt. 2 leagues.
From Fluſhing to the north Forland, weſt ſomewhat ſoutherly 25 leagues.
From the Wielings to Dover w. and by ſouth 26 leagues.
From the Wielings to Lay-ſtaffe or Yarmouth, north weſt 32 leagues.

Heights.

Fluſhing, Ramekens, and the ſouth coaſt of Walcheren lye neare in 51 degrees and a halfe.

Brewers-haven.



The land of Schowen ſheweth it ſelfe thus when it is three or foure leagues thwart from you.

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

E S A

Brugge

Sluys

Cadsant

Oostende

Vlissingen

Middelburch

WALCHE REN.

Ramsgert

De Put

De West Put

Den Hckelag

Nauwe gote

Weele

Ackart

Trapegeel

Scheurlag

Binnen Sant

De Kuit

Troyi

De Cust van

VLAENDEREN.

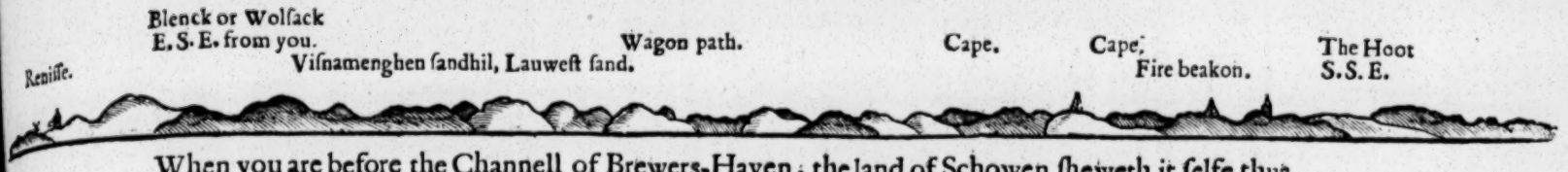
Beginnende vande Wielingen tot aende Hoofden,
met alle haer sanden en droogten.

t'Amsterdam.

By Iacob Theunisz. op't water in Lootsman.

R J A

Winxbergen
Cassel
Spykere
Borborch
Groot Sinten
S. Joos
Sout Kote
Duynkercken
Clyn Sinten
Loven
Grevelingen
Oye
Wallamme
Ambleteuse
Cales
Bracck
Swartenes
Bracbanc
Polder
't Clif
The Falls
The Gulls
Sand head
Brake
Queenes
North Foreland
Island of Thanet.
Margate
Cliffend
Burchenstone
Kingsdowne
Walmer Castle
Deale Castle
ENG
Deale Church
Sandowne Castle
LAND.
Sandwith



When you are before the Channell of Brewers-Haven, the land of Schowen ſheweth it ſelfe thus.



Thus ſheweth Walcheren when you are in the Doorloy, or before the Splete.



Thus ſheweth the coaſt of Flanders from Blanckenbrough eaſtwards, when you ſayle in or out at the Wielings.

The fourth Demonſtration.

Which unfoldeth

The Coaſt of Flanders, from the Wielings to the Heads, about Callice, together with the Coaſt of England, from Dover to the north Forland.

BEtwixt Wenduynen & Blanckenbrough ſtandeth another little ſteeple, called John Davids ſteeple. Ooſtend lyeth a great league to the weſtwards of Wackerhout. A halfe league to the weſtwards of Ooſtend, lyeth S. Catelyn, and a league to the weſtwards of it is Midlekerk, being a high thick flat ſteeple. From Middle-kerck to Newport it is two leagues, there is a flat ſteeple with a little ſharpe ſteeple. A little to the eaſtwards of Newport lyeth our Lady of Lombardy, a high flat ſteeple.

From Newport to Broers it is two leagues, and from Broers to Dunkercke three leagues. The Southkoten is a league to the eaſtwards of Dunkerck. Dunkerck hath a high flat ſteeple, with a little ſharpe ſteeple. From Dunkerck to Graveling are three leagues, betwixt them ſtand theſe ſteeples, firſt little Sinten a little ſharp ſteeple, great Sinten a thick flat ſteeple, Mardycke a thicke flat ſteeple, and S. Georges a high ſharpe ſteeple, Graveling hath no ſteeples, but there ſtand two mills, one on the Eaſter-gate, and the other on the weſt end of the towne. From Graveling to Callice are three leagues. Callice hath many ſharpe ſteeples, where of one is higher then all the reſt, and betwixt bot lye theſe villages moſt without ſteeples. Firſt Hoghenpryſe and Daſen, two flat ſteeples; more Valdam a flat Church with a little ſpire upon the middeſt of it, that is all the knowledge of Flanders. The Coaſt of Flanders betwixt Callice and Blanckenbrough, is foure and twenty leagues long, or as ſome ſay, one and twenty leagues, and Blanckenbrough from Fluſhing nine leagues. Soo that Fluſhing is from Callice, at the leaſt 30 leagues, or as ſome ſay 33 leagues at the moſt.

That which is here ſayd of the ſteeples and leagues alongſt the coaſt of Flanders, is very deſcribed and needfull as well for that which is before deſcribed of the Wielings, as alſo for the ſayling into the havens of Flanders, but eſpecially for the knowledge of the Flemiſh bancks.

Ooſtend For to ſayle into Ooſtend, you muſt run cloſe to the eaſtwards of the towne into the haven, called the Gueule on the eaſt poynt of the haven lyeth a head, where upon ſtandeth a beakon, you muſt run cloſe in by that head, there it is deepeſt, from the weſt ſide to wit towards the towne, ſhooteth of a little flat, whereof you muſt avoyd that ſide a ſhips length or 2, at low water and a common tyde remaineth in this havens mouth 6 foot, and at high water there is two and twenty foot water. A little within the haven you may anchor where you will, and at low water you may lye there with a great ſhip a float.

Newport. Newport is a tyde-haven, which falleth altogether dry at low water, and at high water and a common tyde there is 13 foot water, cloſe before the havens mouth is a bank, which lyeth from the eaſtwards of the Haven of Newport over to the weſtwards, thwart before the Havens mouth, and at halfe floot lyeth dry, and at high water there commeth no more upon it then eight foot water.

For to ſayl into Newport. He that will goe into Newport, muſt go in from the weſtwards betwixt the foreſayd banck and the Land, and ſayle unto the ſouthwards of the banck ſoo long untill that the innermoſt beakon come even through, or to the eaſtwards of the outermoſt, and then run in ſo right by them, & in alongſt a midſt the channell betwixt the heads. Betwixt the banck and the land it is on both ſides flat riſing ground, ſo that you may ſound the ſhoares on both ſides, but on the north ſide the banck is ſomewhat ſteep, it is 3 fathom deep cloſe alongſt by it. Within the havens mouth it is ſet on both ſides of the deep with beakons, where you muſt run through betwixt, untill you come before the Towne, which lyeth about a Cannon ſhot from the ſea ſide. There is fire in the night upon the two great beakons, out not longer then from halfe flood to half ebbe.

Quade-banck. From Newport to Dunkercke alongſt by the ſhoare through within the banckes, it is cleane without any foule grounds or bancks, and at low water fifteene foot deepe, the neerer the ſhoare the deeper. Thwart of the Cloyſter Ten-Duynen betwixt it and Broersbanck, it is narroweſt, which lyeth not farre from the ſhoare, thwart of it you muſt goe cloſe alongſt by the ſhoare.

The Quade-bancke runneth of to the eaſtwards of the head of Dunkercke, at leaſt two leagues to the weſtwards ending thwart of the heads of Dunkercke. To the eaſtwards of the eaſter head of Duynkercke men may anchor behinde this banck, and lye ſheltred for a northweſt, north, and northeaſt winde, it is two fathom deepe there at low water, but in the comming in, it is ſhoaler. Before the Havens-mouth of Dunkerck, it is 9 and ten fathom deepe, and to the weſtwards of the weſter-head of Dunkerck 6, 7, and 8 fathom, from thence men may runne over the ſmall banck in three fathom, and come againſt the Broad Bancke. This ſmall bancke lyeth right thwart before the Haven of Dunkerck, to wit, betwixt Dunkercke and the Broad-banck. Small-banck.

For to ſayl into Dunkerck. For to ſayle into Dunkerck you muſt bring the fires

within a capstane barrs length one to the other, to wit, the innermost so much to the eastwards of the outhermost, keep them soo, and run in then close alongst by the easterhead, the wester-head lyeth somewhat further of into the sea then the other, thwart of it lyeth a sandplate with some pales, therefore you must avoyd it, and runne in close alongst by the easterhead it is a narrow haven, & at high water and a common tyde there commeth no more then 12 foot water. In the night they doe fire there as at Newport, from halfe flood to halfe ebbe, and the lowest firebeakon standeth next unto the sea.

The Splinter. From the wester-head of Dunkerck runneth of a bancke about 2 leagues long, called the Splinter, which falleth dry at low water at many places, men may sayle in by the shoare, behind this banck from the westwards almost to the westerhead of Dunkerck, and there may come to an anchor in 5, 6, 7 and eight fathom. About halfe a league from the foresaid westerhead, there runneth a Slenck through the foresaid bancke, where little Shippes may goe through at high water.

Graveling. Graveling is also a tyde-haven, where men must goe in at high water, there stand two beakons, which you must keepe one by the other, and sayle so in betwixt the heads, on the west side runneth off a little riffe, which you must avoyd. When you come from the eastwards alongst the coast running through Wolbreck Sound, at the end of the Brakes, (that are the banckes before Dunkerck, and from thence westwards) then you come against the westpoynt of the foresayd little riffe or out-sand off Graveling, which lyeth a good way of into the sea, to the eastwards of it men run into the Haven of Graveling by night right in with the fires.

To the westwards of the Haven of Graveling lyeth a bancke or flat alongst the shoare, lying a good way of from the land to sea-wards, almost as farre to the westward as Callice, called the New-land, men may runne alongst by it, or over it in five, foure, and three fathom, according as men will.

Newlanden.

Callice. The haven of Callice falleth every tyde altogether dry, and at high water with a common-tyde, there is no lesse then three fathom water. For to sayle in there you must keepe the mill (standing on the east corner of the towne) right over the easter-head, & run in soo close alongst by the easter-head, and let the castle lye on the west side of you, from the wester-head runneth of a little riffe, therefore you must avoyd it. When you are come in within the westerhead, you must goe up to the westwards into Paradice, and there lye dry at low water. By night when the tyde serveth, there stand two fires, you must run in right with them. It is not good to come into this haven before high water, because of the exceeding strong tide that runneth in there with the flood, for to avoid the anchors of the ships, which lye there within. It is there within dangerous and bad lying, especially with a northerly winde which bloweth there open in.

Thwart of from wester-head of Callice lyeth a bank of two fathom, betwixt the head or Meyland, and the same bancke men may runne through in three fathom at halfe flood, the bank is two fathom deepe. Under Callice cliffe at the east end, men may anchor in ten fathom, but at the westend lyeth a rocke under water, a bow shot from the land. Callice cliffe lyeth betwixt Callice & Blanckneese.

Callice-cliffe.

Of the Flemish Bancks.

West from West-cappell, and northwest from Oostend, about nine leagues without the Coast of Flanders, lyeth a little plate, where upon at low water is no more then two and twenty foot water, in foule weather the sea breaketh very much upon it.

About two leagues from Oostend without the land lyeth the Trick, or outerbanck, upon it there is no more then fifteen or sixteen foot water. When S. Catharines steeple commeth against Oostend, then you come on against this banck: betwixt this banck and the heads of Oostend, lyeth another bank of three fathom water.

The Trick.

Betwixt Oostend and Newport lye foure bancks, all which foure begin about thwart of Oostend, the two nearest to the lands end thwart of Newport. The other lye all alongst the land almost to Dunkercke: the first and neareast to the land is called the Geere, betwixt that and the land goeth a channell through, of 8. 9. & 10 fathom. The Geer.

The second called Laland, endeth also against Newport, betwixt these two goeth a channel through of eight and nine fathom. Laland.

The third are two bancks one to the other, the eastermost ending halfe wayes: Laland is called Stroom, the westermost ending thwart of Dunkerck, is called the Stone-banck which hath on the east side a hooke, which lyeth to eastwards, running to nothing allmost against Newport: this banck is three or foure fathom, and upon the east end five & six fathom. Stroom. Stone-banck.

The fourth is also in two banks, the eastermost is called Sandele, or Oudemoers bank, and the westermost Calbank, of some called also Small bank, which lyeth alongst by the Broad-bank: but that outer end lyeth at least two great leagues off. Sandele. Calbank. Oudmoers Banck.

The shippes that will goe before Dunkerk & cannot get alongst by Flanders, doe runne about without these bankes, untill they come against Broad-banke, and then runne in alongst by it 5 or 6 fathom. The Channell is 15 fathom deep, and every one of these foure bankes hath a dry Poelder. When 2 Steeples (that are somewhat flat to the southward of Newport) stand a handpikes length asunder, then are you thwart of these foure banckes there before mentioned, which are not deeper at low water then one fathom, and at spring-tydes fall almost dry.

Betwixt all these bankes you may anchor in 9. 10. 11. and also in 12 fathom, you may runne over them, in 4 fathom, but when you are to the westwards of them you shall finde it deeper, to wit, 8. 9. and 10 fathom.

The Broers banck is three cornerd, and lieth close by the land thwart of Broers and the Cloyster Ten Duynen, and lyeth of from the shoare about westnorthwest a league into the sea, when the Cloyster Ten-Duynen, or the Broers lyeth south from you, then you are at the innermost part of the Broers-bank, you may runne through betwixt the land and this banck, in foure fathom at low water; but men doe run commoly about to the westwards of it, when they sayle through within the bankes, alongst the Coast of Flanders. Broers banck.

A little to the westwards of Broers-banck lyeth the Cams-banke, which is three fathom deepe, and lyeth in many Rasses, you may run through betwixt the land and this banke also in 8. 9. and 10. fathom, and also may ride there for alt winds. By the land, betwixt this bank and Broers banck, it is 5 fathom deepe. When you run through betwixt this banke and the land, then you come alongst by the Quade bank untill you come before the Haven of Dunkerck. When you are a good wayes past the head of Dunkerck, about S. W. from the Splinter, then you runne over a shoale of two fathom, called Wilbaert Sound, being over it you shall have againe then 11 & 12 fathom. When Borburger steeple commeth in the valley of the sand-hill, then you are thwart of this bancke, by these markes you may sayle through these bancks northnorthwest into the sea, and come against the tayle of the Broad-banck in foure fathom. When as that you doe edge againe somewhat towards the land in twelve, thirteene, or fifteene fathom; then you may sayle through betwixt the Broad and the Small bancke, on eastnortheast, or east and by north untill you are past the Cloyster Ten-Duynen, or the Broers-banck, which lyeth off from the Cloyster about a league into the sea. To the eastwards past this banck it beginneth to be shoale water against Newport foure or five fathom, being past Newport, you must edge towards the land, in eight or nine fathom, keeping close to the land, and then you shal run throngh betwixt the land and the Geere, (which lyeth alongst towards Oostend:) When you come against Oostend, then you

Cams-banck. Wilbaert Sound. Borburger

are

are cleare of the bancks, and then you may run into the ſea for to goe into the Wielings.

There lye yet five long banckes alongſt Flanders. When Graveling is ſoutheaſt from you, then you are thwart of the ſout end of theſe bankes: & when Newport is ſoutheaſt from you. Then you are thwart of the north end of them they are very long, and betwixt each goeth a wide Channell through, of eight, nine, twelve, fifteene, ſixteen, eighteene, nineteene and twenty fathom deepe, each of a ſeverall hig depth.

The outermoſt or weſtermoſt bancke called the Cliffe lyeth from Callice-cliffe northnortheaſt about foure leagues and a halfe, and is three fathom and a halfe deep: betwixt this and the other goeth a wide channell through of three and twenty and 24 fathom deep.

The ſecond kalled the Ruyting, lyeth from Callice-cliffe northeaſt and by north about foure leagues, and is there five or ſix fathom deepe, but upon the ſouth end of it, is a Poelder of a fathom ond a halfe. When the ſouth end of Winocxbergen commeth betwixt the two flat ſteeples to the weſtwards of Dunkerck, then are you thwart of this Poelder.

There ſtand three or foure mils to the eaſtwards of Dunkerck, when the outermoſt commet over the eaſt end of the towne, that is alſo a good mark of this Poelder or ſhoale, and then the ſteeple of Dunkerck ſhall be from you ſ. e. five leagues.

Betwixt this and the third goeth alſoo a channell through of 12 and 13 fathom.

The third, called the Dyke, lyeth from Callice-cliffe northeaſt, and is deepe foure and five fathom, upon the ſouth and north end of this Bancke are Poelders, the ſouthermoſt is deepe one fathom, and lyeth alſo upon the markes of Winocxbergen about northweſt, ſomewhat weſterley from Dunkerck, & is called the Polder of the Dyke, or Dyke-polder, the other Polder or ſhoale of this bancke is about foure fathom and two foot deepe, and lyeth n. w. from the Cloyſter Ten-Duynen. Theſe bancks are very dangerous; for the Ruyting lyeth allmoſt in the fare-way, and at low water they have no more then two fathom depth.

The fourth banck, called Kettel-banck, lyeth from Callice-cliffe northeaſt and by eaſt, and is deepe three, foure, five and ſix fathom. Upon the ſouth end is a ſhoale of one fathom water at low water, at ſpring-tydes theſe Polders fall dry. Alongſt by this goeth alſo a channell through of 19 and 20 fathom.

To the eaſtwards of the Kettel-banck, to wit, betwixt that and the Broad-banck goeth through a great channell of 19 and 20 fathom.

In all the channels betwixt the foreſaid banckes, men may turne to windwards every where from one bancke to the other, & anchor betwixt the banckes where they will.

The ſouth end of the Broad-bancke lyeth from Callice-cliffe eaſtnortheaſt, and hath one ſhoale upon the ſouth end of one fathom and a halfe, is throughout three and 4 fathom deepe.

The north end is deep 6, 7, and 8 fathom, and lyeth ſo far to the northward, untill Newport be northweſt from you, or the Cloyſter Ten-Duynen bee northnorthweſt 5 or 6 leagues from you.

The Coaſt of England from Dover to the north Forland.

Betwixt Callice and Dover amiddeſt in the fare-way, (or ſomewhat nearer the French ſide then the Engliſh) lyeth a narrow bancke of foure leagues long, lying about n. n. eaſt, and ſouthſouthweſt alongſt the land of Blackneſſe, being called the Vaen, and by the Dutchmen called Vrow-ſand, of 5, 6, 7, and 8 fathom depth, and runneth to the ſouthwards towards the land of Bulleyn. Weſt and by ſouth from Callice-cliffe, and ſouth and ſouth and by eaſt from Dover, is the ſhoaleſt of it, at low water not deeper then ſixteene or ſeventeene foot. On both ſides of this banck, as well alongſt to the eaſtwards as to the weſtwards of it, it is 20, 22, 23, and 24 fathom deepe. Men may anchor before Dover for a north and northweſt wind, right againſt the Caſtle, in tenne fathom is the beſt road, and cleane ground. For to ſayle into the Downes from the ſouthwards, you muſt run about the ſouth Forland, within two cables length alongſt by the land, and anchor thwart of the middlemoſt Caſtle in 7 or 8 fathom.

The ſouthermoſt poynt of Goodding, and the ſouth Forland lye n. e. and ſ. w. aſunder.

Betwixt Goodding and the Valley in the land off the north Forland, called Ramſgat, lye two ſhoals, where of the weſtermoſt is called the Quernes, and the eaſtermoſt the Brakes. Goodding.

For to ſayle from Dover (through within the Goodding, betwixt the Goodding and the Brakes,) to the north Forland, you muſt goe on north and by eaſt ſo long untill that the mill upon the north Forland come to the weſt ſide of the Valley in the north Forland, then goe yet north and by eaſt, and northnortheaſt, untill that the little ſteeple upon the North Forland come to the Eaſt-ſide of the foreſayd Valley, then you ſhall bee to the Northwards of the brakes, and then the little flat ſteeple on the ſouth Forland commeth too, or right over the third white Chalck-hill to the Northwards of the ſouth Forland, that is a direct long marke, for to ſayle through betwixt the Brakes and Goodding, as well when you come from the Northwards as from the ſouthwards.

For to ſayle through within the Goodding from the Northwards, you muſt not come nearer the Brakes then in ſeven fathom, and ſet the ſouth Forland ſouthſouthweſt from you, and ſayle then ſo right with it, and then you ſhall runne alongſt the beſt deepe. When as the flat ſteeple upon the North Forland ſtandeth in Ramſgat or the Valley, then you ſhall be thwart of the Brakes, and when the mill commeth in Ramſgat, you ſhall be to the ſouthwards of the brakes. Brakes.

When you lye in the Downes, and that the inner point of the cliffe of the ſouth Forland lye ſouthſouthweſt from you, then the Quernes lye north and by eaſt from you, and the end of Goodding n. e. from you. Quernes

The north end of Goodding, and the poynt of the north Forland, lye ſoutheaſt and by eaſt and n. w. and by w. a league and a halfe aſunder.

For to come from the Northwards into the Downes through betwixt the Brakes and the Quernes: there ſtandeth a Churck upon the high land of the ſouth Forland, to the northwards of it, which is a flat ſteeple, and the Church ſomewhat great of body, and there are three Caſtles upon the ſtrand of the Downes, you muſt bring the foreſayd Church with the flat ſteeple right in the middeſt betwixt the two ſouthermoſt Caſtles, and then you are in the fareway in the middle of the channel, and that wil ſerve for a leading mark to run through betwixt the Brakes and the Quernes, and the courſe lyeth through ſouthſouthweſt. If the winde bee ſoutherly, that you muſt turne to windwards through, runne not further over to the eaſtwards then that the foreſayd Church come within two ſhips length of the ſouthermoſt Caſtle, for if you ſhould bring them neerer, or together, then you ſhould run upon the Brake, and being caſt about run not further over the weſtwards then that the foreſayd Church come within two ſhippes length of the three, for if you ſhould bring them neerer, or together, you ſhould run upon the Quernes, and theſe markes will ſerve to turne to windwards through betwixt the Brakes & Quernes, either from the northwards or the ſouthwards. The Brake is ſteep, being five f. cloſe alongſt by the ſide of it and in the middle of the channell is but 15 foot at low water, ſo that it is deeper by this ſide of the Brake, then in the middle of the Channel. As you turn to windwards, and run over to the eaſtwards towards the Brake, as ſoon as you muſt caſt about, or els you ſhould be againſt the Brake: the Querne is flat, but nevertheleſſe as ſoon For to ſayle through betwixt the Brakes and the Quernes.

ſoon as you finde it ſhoaler (in running over to the w. wards the Querne) then 15 foote, you muſt caſt about a-
Thwart markes of a tayle of ſand, lying of from the Goodding. gain, and ſo turn through. About halfe a league from the north end off the Goodding to the ſouthwards, lyeth of a flat tayle or ſpit of ſand to the weſtwards from the Goodding, a great musket ſhot of, and fallet dry a good wayes of at low water, which maketh the channell there betwixt the Goodding and the Brake very narrow, the thwart markes of this tayle of ſand are theſe: up within the land, a little to the ſouthwards of Ramſgate, ſtand 3 or 4 high trees together, when theſe trees doe come right over the ſouthermoſt end of the cliffe that lyeth alſoo a little to the ſouthwards of Ramſgat, then you are thwart of this foreſayd tayle of ſand, as ſoon as you ſhall bee paſt it, then you ſhall have more roome to turne to windwards, and may run further over to the Goodding.

For to run about a ſeaboard of Goodding. For to ſayle from Dover without the Goodding to the north Forland, you muſt keepe the poynt to the weſtwards of Dover without the ſouth Forland, and goe on northeaſt untill that the north Forland come n. w. and by weſt from you, then you may boldly run to the north Forland, and anchor before Margate, or where that you ſhall think it beſt, but thwart of the ſteeple, where the mill ſtandeth by, is the beſt roade. Or when the poynt of the north Forland lyeth ſouthſouthweſt and ſouthweſt and by ſouth from you, there is alſoo good riding in 8 or 9 fathom. Betwixt Margate & the Reculvers, men may anchor every where in ſixe or 7 fathom at halfe flood.

Betwixt the Querns & the north Forland men may alſo run through to Sandwich, there runs of a litle ſtone-banck from the ſhoare, called the Fourefoot, betwixt that and the Quernes it is at halfe flood two fathom deepe. The Quernes are late ly growne much leſſe, and ſhifted, ſoo that the north end of them is allmoſt gone.

Of the tydes & courſes of the Streames.

Alongſt the coaſt of Flanders on the Land, a ſouth and north moone maketh full ſea

In the fareway without the Flemiſh banckes in the ſea, a ſ. w. moone maketh high water.

In the middeſt betwixt the Heads, a ſ. w. Moone.

At Dover, a ſouth & north moone.

In the Downes, a ſouthſouthweſt moone.

At the n. Forland, a ſouth & n. moone.

Alongſt the Flemiſh banckes, the fore flood falleth over the bancks, towards the land, about the third part of the tyde, afterwards alongſt the Land, but the after-flood falleth to the northwards alongſt the ſea in the right fareway.

When the flood beginneth to go there thwart of at ſea, then it is already half flood on the land, and the water flowen halfe wayes, ſoo that men may goe into all the Havens on the Flemiſh coaſt with 5 or 6 foot water.

In the middeſt through the Heades, the flood falleth n. e. & by eaſt, & the ebbe ſouthweſt & by weſt.

Fro. Dover to the n Forland, the tyde falleth through within the Goodding n. & ſ. over the Brakes & Quernes.

Before Callice and Blackneſſe, the flood falleth firſt one quarter to the land, afterwards n. n. e.

Of the Depths.

In the right fare-way betwixt the Marſdeep & the Heades it is 23 & 24 fathom deepe. A little without the Flemiſh banckes 18. 19. & 20 fathom, but neere Goodding, or about the north Forland, it is 26. 28. and alſo 30 fathom deep, the neerer Goodding the deeper water.

Being thward of Goodding in 28 or 29 fathom, you ſhall not be 2 ſhots of a caſt-peece from it.

For to ſayl out of the Marſdeep towards the Head, go not on otherwiſe then ſouthweſt, & ſouthw. and by ſouth, (but you muſt be very carefull to take heed of the tydes) when you ſhall reckon to have ſayled 40 or 46 leagues, then edge over to the Flemiſh banckes, untill you come in 20 or 18 fathom, when that you are ſure of the grounds, then goe on ſouthweſt, & at length ſouthweſt & by weſt, & you ſhal come in the midſt betwixt the Heads of Callice & Dover.

Flanders you may ſee from the Poope in 16 fathom, and then you are within the poynt of the Flemiſh banckes.

Callice clifft & the ſouth Forland, or the poynt of Dover you may ſee when you are before them in 24 fathom.

Courſes and Diſtances

From Blanckenbrough to Oſtend ſ. w. & by w.	2 leagues.
From Ooſtend to Newport w. ſ. w.	3 leagues.
From Newport to Dunkerck w. ſ. w.	5 leagues.
From Dunkerck to Graveling w. ſ. w.	5 leagues.
From Graveling to Callice w. ſ. w	4 leagues.
From Callice to Callice-cliffe ſ. w. & by weſt	1 league.
From the Heades of Callice and Dover to the Riffe of Iutland northnortheaſt	120 leagues.
From Callice-Cliffe to the Naze in Norway, north north eaſt, ſomewat northerly	143 leagues.

Heights.

The Heads and Dover lye in	51 degr. 12 min.

How theſe Lands doe ſhew themſelves at Sea.



Thus ſheweth the coaſt of Flanders betwixt Oſtend and Newpoort.



Thus ſheweth Dover when you ſayle to the weſtwards of the Vaen, or Vrow-ſand, through the Heades,

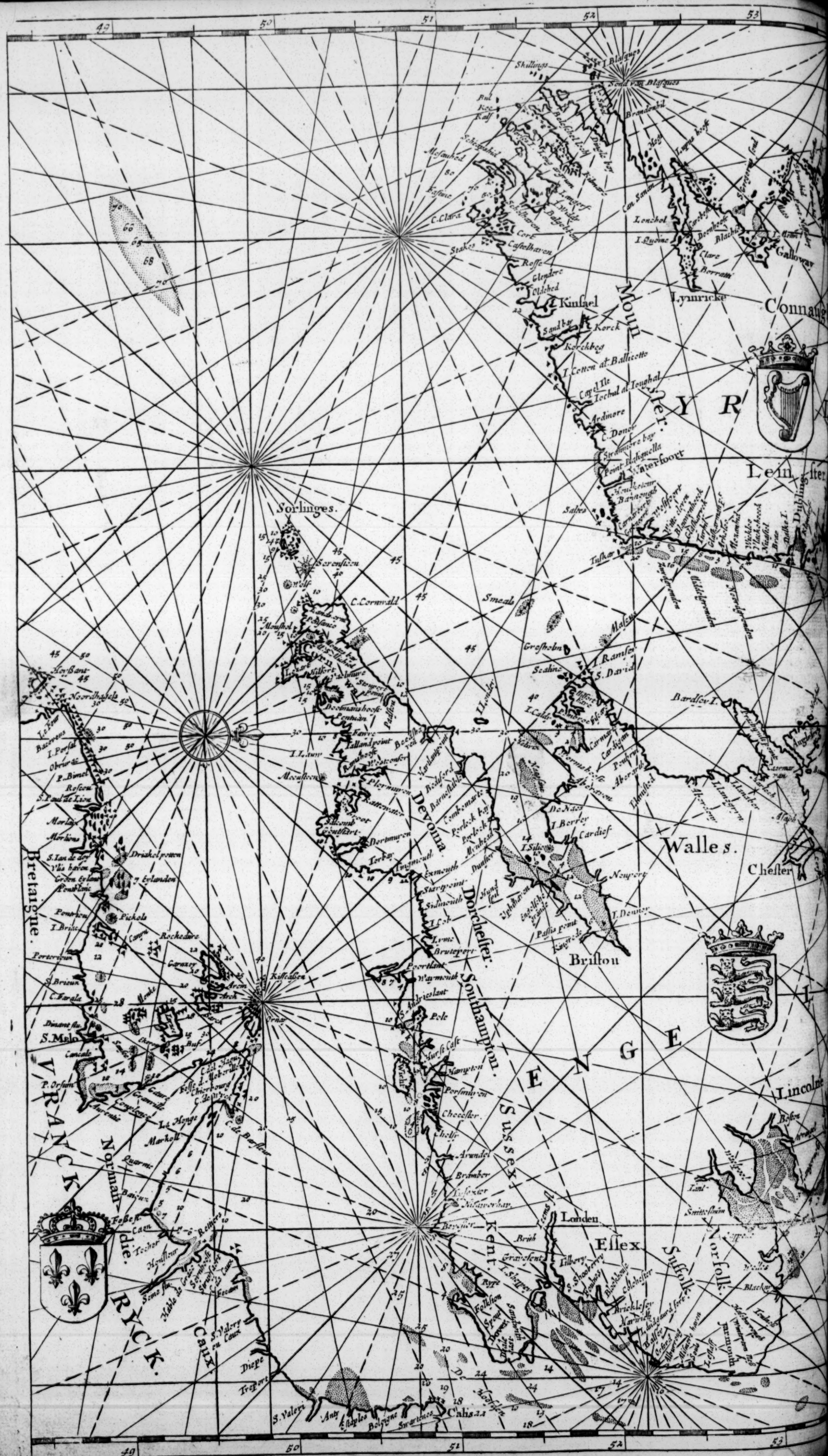


When you run from the Downes towards the north Forland, then the land ſheweth it ſelf thus.



Thus ſheweth the coaſt of Flanders, betwixt Newport and Callice, when you ſayle alongſt by it.

The


Sorlinges.
Mount
Lyncricke
Connaught
Leinster
Munster
Devonia
Dorcheſter.
Southampton.
Suſſex
Kent.
Walles.
Cheſter
Lincolne
Norfolk.
Suffolk.
Eſſex.
Londen
Briſtou
Bretaigne.
Normandie.
VRANCK RYCK.
Calix
Diepe
Cahis
Boloigne
Anty
Naples
S. Valery
Dover
Sandwich
Harwich
Yarmouth
Lowestoft
Aldborough
Blackeney
Lynn
Wells
Boſton
Spurn
Humber
Hull
Scarborough
Whitby
Newcaſtle
Berwick
Edenburgh
Leith
Dunbar
Aberden
Montroſe
Dundee
Perth
Stirling
Glaſcow
Air
Port Patrick
Donaghadee
Carrickfergus
Belfaſt
Olderfleet
Colerain
Londonderry
Lough Foyle
Lough Swilly
Sligo
Galloway
Clare
Berrum
Blacke
Dernhouſe
Lonchol
I. Quoine
Kinſael
Korck
Sandbay
Korckbeg
Cape de Ile
Ardmore
Dongarvan
Waterford
Dublin
Wicklo
Arklo
Drogheda
Dundalk
Carlingford
Strangford
Belfaſt
Bangor
Portpatrick
Whithorn
Kirkcudbright
Wigtoun
Carlile
Cockermouth
Workington
Whitehaven
Ravenglaſs
Furneſs
Lancaſter
Preſton
Liverpool
Chester
Shrewsbury
Worceſter
Glocester
Briſtol
Bath
Exeter
Plymouth
Saltash
Launceſton
Barnſtable
Biddeford
Ilfracombe
Minehead
Dunſter
Bridgewater
Weſtbury
Sherborne
Dorcheſter
Weymouth
Portland
Lyme
Sidmouth
Exmouth
Dartmouth
Torbay
Plymouth
Falmouth
Penzance
Scilly
Lands End
Mount Bay
Helford
Truro
Padſtow
Hartland point
Lundy
Milford
Pembroke
Tenby
Caermarthen
Aberyſtwith
Cardigan
Aberconway
Anglesey
Holyhead
Beaumaris
Bardſey I.
Caernarvon
Barmouth
Aberdovy
Llanbather
Llangharn
Llandilo
Abergavenny
Monmouth
Newport
Cardiff
Landaff
Llandaff
Swanſey
Caermarthen
Pembroke
Haverford
Milford
Fiſhguard
Cardigan
Aberyſtwith

Pas-Caert van ENGELANDT Schotlandt Yrlandt

en een Gedeelte van Vranckrryck

op Nieuws Overgesien en verbetert

't Amsterdam

By Iacobus en Caspar us Loots man Boeck-verkoopers op't Water in de Lootsman

Duytsche Mylen 15 in een Graet

Spaensche Mylen 17½ in eē Graet

Eng: en Fr: Mylen 20 in een Graet

SCHOTLAND

Lewis

Mula

Glasque

Carliße

Edenborg

Northumberland

Dery

Ulster

Orcades Is.

Barra Major

S. Kilda

S. Kilder

Navy

Ronsa

Allarick

Skye

Ellan Ronan

Nicastel

Dedgers Sand

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng: en Fra. mylen 20 in een graet

V R A N C

Diepe

Crotoy

Oostduyn

Anthr. H.

S. Josse

Montstreul

Estaples

Boloigne

Beunen

Ambleteuil

Swartenes

Vrouwen sand

de Hoofden

Romney

Rye

Fiedler

Winchelsea

Beveler

Cuckmerhaven

Dover

Dover Castle

High Cliff

Kingsdowne

Walmor Castle

Deale Castle

Deale Church

Sandowne Castle

Sandwich

Land of Thanet

Reculvers

E N G E L S A

De Cust van

NORMANDIE,

en Picardie; als mede een gedeelt van Engelant, tusschen de Hoofden, Ornay ende Poortlant.

't Amsterdam,

By Iacob Theunisz. op 't water in de Lootsman.

Caen

Estrechan

Dover stu

Quareme

Markol

R Y C

T. de S. Marcus

la Hange

C. de la Hague

Ras van Blanckert

Ornay

Wicht

Weembrug

Wolfert's horn

Swarteclif

Selsey

Chechester

Portsmouwen

Neuport

De Naelden

Sandwich

Poortlant

't Ras van Poortlant

The ſecond part of the New
LIGHTNING COLUMNE,
THE SECOND BOOKE,
Of the
WESTERNE NAVIGATION:

Containing

The deſcription of the Sea-Coaſts of France, from Blackeneſſe to Uſhand, and the Coaſts of England from Dover weſtwards, to the Lands end the Channel of Briſtow, with all the Sea-Coaſts of Ireland.

The firſt demonſtration,

Where in

Are ſet fourth the Coaſts of France, from Blackneſſe to the Iſland Aldernay or Ornay, & from Dover te Beachy.

ABout a great league to the weſtwards of Callice cliffe lyeth Blackeneſſe, a fowle outpoynt, thwart of it lye many rocks alongſt the ſhoare. From Blackneſſe to the Rivier of Bullen, lyeth the coaſt ſouth and by eaſt three leagues, a league to the ſouthwards of the Neſſe, the land falleth ſomewhat in with a faire ſandy Baye. In this Baye lyeth a Fiſher village on the coaſt, thwart of it in the ſandy Baye is a very good roade for eaſterly windes, in 5. 6. 10. 15. and 16. fathom, according as you will lye farre from the ſhoare. For to anchor there, you muſt bring the ſteeple of the village over the middeſt of the houſes. This place is called S. Johns roade. A little to the northwards of that foreſayd Fiſher village, ſtands a mill with ſome houſes, from thence to the northwards you may not anchor, for there the ground is fowle and ſtony. To the ſouthwards of the Roade towards the River of Bullen, lye alſoo ſome little rockes alongſt the coaſt which you muſt not come very neere to.

Upon the north poynt of the River of Bullen ſtandeth a high thick Tower, called the Tour d'Ordre, by ſea men the Old-man, a ſpeciall mark for to know the River by. About an Engliſh mile to the northwards of this Tower, a little mile from the ſhoare, lyeth a little ſuncken rock under water where a Huye or Smack may not goe over.

Upon the ſouth poynt of the River of Bullen ſtandeth a ſtone wall, and upon it a great Beakon of a maſt, thwart of it from the ſouth poynt lyeth off a little riffe or ſhoale, that you muſt ſhun, and run cloſe alongſt by the Head, which lyeth at the north poynt, and hath been there lately made. When you are come within this Head, you muſt preſently let fall your anchor and ride there; It is a tyde-haven, there you muſt goe in at high water, and at low water lye drye upon the chindle. Without, before the River, lyeth a banck, men were wont from the ſouthwards to run in over in two fathom and from the northwards in three fathom, but it is now to the ſouthwards deeper, through the ſcouring of the water alongſt the foreſayd Head which is made at the north poynt.

From the Oldman, or the River of Bullen to Somme is the courſe ſouth about eleven leagues, between them lye alſoo two other rivers, Cauche & Auty, upon the firſt lye Eaſtaples and Monſtreu, there you muſt goe in a middle channell at the heigheſt water, within, it falleth altogether drye at low water.

For to ſayle into the Somme.

Men may ſayle into the Somme, through two channells, from the eaſt poynt called the Eaſt Downe, lyeth off a ſand thwart before the channell; to the weſtwards off that riffe lyeth alſoo another great banck, between them goeth in the Eaſter-channell. For to ſayle in there, bring S. Valery a cables length to the weſtwards of the weſt point of the River, called the Oordell, & run in there upon, untill you come to the land at that foreſayd weſt poynt; and from thence cloſe alongſt by it, or as ſoon as you get againe deeper water over the banck, then turne up eaſtward towards the beacons. From the goynt of the Oordell lyeth of to the northwards a little riffe, upon the end of it lyeth a buy which you muſt leave on the ſtarboard ſide, and run in cloſe about to the northwards of it. From the point of the Oordell upwards, it is ſeth alongſt with beacons, you muſt run alongſt cloſe by them, untill you come within the point of S. Valery, where you muſt anchor, and lye every tyde dry. The ſands there within do ſhift ſo often, that they are no to be deſcribed for al wayes.

For to ſayle into the weſtern-channell, comming from the eaſt or the north, you muſt run alongſt by the banks in ſix or ſeven fathom, and not neerer, they are ſo ſteepe, that a ſhipp ſitting faſt upon them with the fore caſtle, at the ſtern hath three fathom. Comming towards the land at the end of the bankes, you ſhall finde a buy. Or els if you come from the weſt, and bring Crotoye a cables length within the Oordell, and ſayle ſoo right in, you ſhall finde the foreſayd outermoſt buy. Beſides this, there lye three other buyes, whereof that foreſayd buye on the poynt of the Oordell is the fourth, & the innermoſt: You muſt leave them all on the ſtarboard ſide towards the land, and run in alongſt by them to the northwards of them.

For to ſayle into the weſter channel.

Theſe channels and ſands there within (all untill paſt S. Valery) fall at low water altogether drye, the buyes alſoo fall drye, that men may goe by them, at halfe flood with an ordinary tyde there is no more then two fathom Water, it is not good to goe in there before that two third parts of the flood bee ſpent. With an

ordinary tyde it floweth there five and ſixe fathom, but with a ſpring-tyde ſeven fathom up and downe. At high water and ſpring-tyde, a man may goe over all the bankes and ſands wight eight or ten foot Water, five leagues upwards lyeth Abbeville.

Thwart of the Somme, it is farre off in to the ſea ſhoale water, five, ſixe, ſeven, eight, nine and ten fathom, three or foure leagues off into ſea: He that commeth from the weſt, and findeth himſelfe in darke and miſty weather to bee in ſuch ſhoaling, may bee wel aſſured, not to bee farre from the Somme.

From the Oldman to Diep, the courſe is ſouthſouthweſt 18 leagues, but from the Somme to Diep ſouthweſt and by weſt eight or nine leagues. About halfe way betweene the Somme and Diep, lyeth the River of Heu, within it on the north ſide lyeth Treſport, being alſoo a tyde-haven, where men muſt goe in at high water, and at low water lye dry.

Treſport

Diep. At the eaſt ſide of the Haven of Diep, lyeth a ranck of rocks, and from it lyeth a little riffe of chindle towards the north, or the weſt; to the ſouthwards of this riffe goeth in the channell, about ſoutheaſt in, it is very narrow, and a ſhort inlet, therein lye three buyes in the middeſt of the deepe, not above a ſtones caſt one from the other, men may run in on both ſides of them; comming to the end of the buyes, they muſt keepe the middle of the channell, and run in betweene the heades, untill they come within the towne, & there make faſt with a cable on the ſhoare. Men may not ſayle in there before flood, but not at halfe ebbe; at low water it falleth altogether dry, but within at the Towne men may ride a float, at high water there commeth three fathom, or at the higheſt not more then 3 fathom and a halfe water, there come out alwayes Pilots to bring ſhips in.

S. Valery, in Caux. From Diep to Saint Valery in Caux, it is ſouthweſt and by weſt foure leagues, that is alſoo a tyde-haven, where you muſt goe in with high water, it is a narrow channell, where you goe in between to the Heads, there is neither ſand nor bancke before it that can hurt you, being come in, you may let your anchor fall, and make you faſt with a cable on the ſhoare. Hee that hath neither cable not anchor, may (being come there within) ſaile his ſhip on againſt the ſhoare in the chindle, and ſoo ſave his ſhip & goods without dammage.

Fecam. From S. Valery to Fecam it is w. ſ. w. foure leagues; that is a deepe tyde-haven, there remaineth at low water little leſſe then 2 fathom water. At the eaſt ſide of the havens-mouth lyeth a banke or plate, men may with ſmall ſhippes ſayle in through betwixt it and the land, and ſo runne in, ſounding, borrowing it eight or nine foot alongſt by the eaſt ſhoare, which is flat. For to ſayle into the weſtwards of the plate, you muſt keepe the Tower of Fecam, without the land, or without the Weſt poynt of the Haven, and then it ſhall bee ſouthſoutheaſt from you, run then upon that mark into the Haven, and then the foreſayd ſand ſhall remaine on the Iarboard ſide of you, and at halfe flood you ſhall have in the Havens-mouth 2 fathom water, being come in before the towne, you may anchor there by the Weſterne ſhoare in three fathom.

Struyſaert. From Fecam to Struyſaert it is weſtſouthweſt three little leagues. Without the poynt of Struyſaert lye two high ſharp rocks. From thence to Seynthead it is ſ. and ſ. and by weſt, 2 leagues and a halfe.

Abouth north weſt from Seynhead lyeth a bancke, upon which at low water remaineth no more then two fathom and a halfe water: when the towne of New-haven commeth without Seynhead, then are you thwart of the back: For to avoyd it, run in cloſe aboard the Seynhead, alongſt untill you come within the firſt mill, there let fall your anchor in 6 fathom, & ſtay for a Pilot to bring you into the haven.

For to ſail into the River of Roan. For to ſayle into the River of Roan, comming from the north or the eaſt, you muſt runde cloſe aboard the land to the northwards of Seynhead, and alongſt by it, ſoo long untill the ſouth ſide of the river come unto the poynt of Seynhead, then runne in with it, untill the land to the weſtwards of Newhaven come without Newhaven, ſayle then unto the Haven of Newhaven. Or elſe, if you will goe without about the bancke or the Rettires, then edge over to the weſtwards ſoo far from the land untill the river come open, ſayle then towards the poynt of Tochet, and run in upon your lead by it, there is at high water three fathom and at low water no more then one fathom. The Rettires is a ſtony bancke, lying in the middeſt of the River of Seine, lying over towards the poynt of Honfleur, at low water it falleth a ſome places dry, at halfe flood it is to the ſouthwards three fathom, but to the northwards 2 fathom deep. When the land of Caen is without the poynt of Seynhead, and you ſayle then with it, ſouth on, then you runne to the weſtwards of it, or alongſt without it. Or elſe, if you keepe Struyſaert a handſpikes length without the poynt of Seynhead, then you runne alſoo without it. When the eaſter gate of New-haven commeth over the eaſter head, and the eaſter mill, ſayle then ſo on, keeping them ſo, then you runne in right to the northwards of the Rettires, and alſoo you can take no hurt of the banck that lyeth towards Seynhead. At Habell or New-Haven men muſt goe in at a high water, and within lye everie tyde dry.

The river of Seine muſt be ſayled into upon the tide, when the moſt, or the ſtrongeſt of the flood is ſpent, then you may ſayle alongſt by the land upon your lead, untill you may ſee in open into the river of New-haven, when then the ſouther Caſtle commeth over the eaſterhead, and the mill; run then right in upon it, but it is beſt to anchor halfe wayes betwixt the Caſtle and Seynhead, and there to ſtay for a Pilot: If there come none off, then ſayle from thence right with the Caſtle that ſtandeth upon the head, there it is deepeſt water.

To ſayle from New-haven upwards towards Roan, is not well to be done without a Pilot, you muſt goe with the tyde through the firſt travaille or banckes, which lie from New-haven to Honfleur ſ. eaſt, alongſt by the ſouther-land, and from thence alongſt the north ſide of the River to Quillebeuf, being come there, you are through the firſt travaille. You muſt alſoo bee well adviſed, and take good heed for the ſtrong ſpring by the Normans, called La Barre, which everie tyde commeth on ſoo ſtrong with the flood, that anchos and Cables have enough to doe to hold a ſhip: For that and other dangers more, it is not good nor convenient to ſayle up the River without a Pilot.

Two great leagues to the ſouthwardes of the River of Roan, lyeth a Tyde-haven, called Tocher, on the weſt-ſide of the entry ſtandeth a beacon, by it you muſt goe in, or you may ſound it in by the Eaſter ſhoare. Southweſt, or ſouthweſt and by ſouth from the poynt of Seynhead, about ſix or ſeven leagues off, lye many banckes, a good wayes in ſea, you may ſayle on both ſides of them (as well to 'the eaſtwards as to the weſtwards) into the Foſſe of Caen, which lyeth in moſt ſouth, and lyeth in a Baye. At the weſt ſide lyeth a chindle, where men may ride within it, it is wyde and broade, and ſandy ſtrand, the Eaſt land is ſandhills, and farre flat in ſixe & ſeven fathom, there men may goe in, ſounding with the ſounding Pole.

From Seynhead to Cape de Barfleur, or Cape de Schierborough, the courſe is Weſt and by north nineteene leagues. About foure leagues to the eaſtwards of it lye the Iſlands of Saint Marques, men may ſayle round about them, but it is not there very cleane.

A league to the weſtwards of the Iſland of Saint Marcus lyeth La Honge a flat Tower, to the weſtwards of it lyeth the poynt of Barfleur, betwixt both is a great baye, where men may lye in ſix or ſeven fathom landlockt for a n. n. weſt winde. A northeaſt winde bloweth there open in.

From

From the north-poynt or C. de Barfleur (which lyeth northnorthweſt from you, when you lye in the road) lyeth off a banck or little riffe, yet a ſhippe may go over it. Northeaſt a league and a half off from the foreſayd point lyeth a rock under water, where ſhippes may not goe over.

From C. de Barfleur to Schierborough it is northweſt and by weſt foure leagues, that is a little Tyde-haven. To the weſtwards of the point of Barfleur lye ſome foule grounds, if you keepe the high land of Schierborough without the Cape de Wijck, you ſhall not come too neare them.

Before Cape de Wijck is a good roade in ſix fathom, a little to the eaſt-wards of the two high rockes in a ſand-bay.

Before Schierborough lye ſome rockes or little Iſlands, which are cleane round about, to the weſtwards of it lyeth a Tyde-haven, called the Foſſe of Moberille, before it on both ſides lye 4 or 5 high rocks, at high water men runne through betwixt them, and ſoo into the Haven. A great league and a halfe to the weſtwards off it, lyeth Cape de Hague.

Two leagues weſt and by north from Cape de Hague lyeth the Iſland Aldernay or Ornay, betwixt them goeth the Race of Blanckert through.

The Coaſt of England.

The point of Dongie Neſſe lyeth from Dover ſouthweſt and by weſt diſtant 8 leagues. At the eaſt ſide of the Neſſe in Romans Bay, thwart of the Romans-tower, is a good roade for weſt & ſ. weſt windes: For to anchor there, runne ſo farre in the Bay, that the point of the Neſſe be ſouth and ſouth and by weſt from you, anchor there in about 7 or 8 fathom, you may alſoo anchor on the weſt ſide of the Neſſe, for a northeaſt winde, ſoo that the point lye eaſt and by north from you.

For to ſayle in to the Camber of Rye, comming from the weſt, you muſt keep Beachy without the point of Fairlee, and run ſoo towards the Neſſe, and being come in faire by it, run in without two cables length alongſt by it, unto the end of the Neſſe, then edge up to the weſtwards, and leave the beakons upon the ſtarboard ſide, untill you come before the caſtle Camber, that ſtandeth upon the ſouther chindle, there you may anchor in foure and five fathom: From thence alongſt even unto the Town of Rye, it is all ſet with beacons, which ſtand alongſt by the eaſt ſide of the Deep, unto the Daries, which at low water fall dry. In ſayling unto Rye you muſt leave all the beacons unto the ſtarboard ſide, and run indifferent cloſe alongſt by them.

The point of the Neſſe and Beachy lye weſt ſouth weſt, and eaſtnortheaſt diſtant 7 leagues. Beachy is by the ſeven white Cleeves, the beſt knowne land that a man can ſee any where. To the eaſtwards of Beachy men may anchor for weſterly windes in ſixe or ſeven fathom, ſoo that the point be ſouth, and ſouth and by weſt from you.

Of the Tydes and Courſes of the Streames.

Before Callice and Blackneſſe, the flood falleth firſt one quarter to the land afterwards n. n. e.

Betwixt Blackneſſe and Bulleyn, the flood falleth n. and by eaſt by the land, but a ſeaboard in the offing northeaſt. A ſouth and ſoutheaſt moone maketh there the higheſt water.

Betwixt Bulleyn, Diep, and before the Somme, the flood falleth firſt one quarter to the land; afterwards northeaſt and by eaſt, and the ebbe ſouthweſt and by weſt.

Betwixt Diep and Struyſaert without the land in the Fareway, the flood falleth northeaſt and by eaſt, and the ebb ſouthweſt and by weſt.

At New-haven, and in the River of Roan a ſoutheaſt Moone maketh a high water.

From Struyſaert to Caen in the Foſſe, the flood falleth ſouthſouthweſt, and the ebb northnortheaſt.

Before the Haven of Caen a ſouthſoutheaſt maketh high water, within the Haven a ſouth and by eaſt moone.

At Marckell, la Honge, Barfleur, Sherborough, and C. de Hague by the ſhoare, a ſouth & by eaſt Moone.

From Seynhead to Barfleur, the flood falleth by the land eaſt and by north, and the ebbe weſt and by ſouth. But in the channell a ſeaboarde the land, the flood falleth away eaſtnortheaſt, and the ebbe weſt ſouthweſt.

At Cape de Hague by the ſhoare, a ſouth and by eaſt Moone maketh high water.

In the Race off Blanckert a north and by eaſt, and ſouth and by weſt Moone. The flood falleth through the Race northeaſt, and the ebbe ſouthweſt.

In the middeſt betwixt the heads a ſouthweſt Moone.

At Dover a ſouth and north Moone.

Betwixt Doger & Dongie Neſſe, and likewiſe thwart of the Neſſe, a ſ. ſ. w. Moone maketh full ſea.

In the Channell of Winchelſea, a ſouth and by eaſt Moone.

At Beachy by the ſhoare, a ſ. ſ. e. & n. n. w. Moone.

In the Fareway thwart of it, a ſouth & north Moone.

From Dongie Neſſe to Dover, the flood falleth n. e. & by eaſt, & the ebbe ſ. w. & by weſt.

From Beachy to the Neſſe, e. n. e. and w. ſ. w.

At Beachy by the ſhoare before the ſeven Cleves, the flood falleth eaſt & by ſouth, and the ebbe w. and by n.

Of the Depths.

Callice cliffe & the ſouth Forland, or the poynt of Dover, you may ſee when you are before them in 24 fathom.

To the ſouthwards of the Oldman, or Tour d'Ordre, lyeth the high land of Eaſtaples, which is very good to bee known, becauſe thereabouts is no land ſoo high. When that is n. n. e. from you; and you be thwart of the Somme, it is there deepe 8 and 9 fathom.

Upon the land of Somme towards Diep, ſtand many ſharp towers, & ſome milles & trees, and hath all alongſt the coaſt a ſandy ſtrand.

Before Diep, men may ſee the land in twenty & two and twenty fathom.

About foure leagues without Struyſaert it is deep 20 fathom.

Between Diep & Seynhead ſtand alſoo many ſharpe towers, trees & houſes upon the land Struyſaert is beſt to be knowne on a great rock like a high tower, thwart of it in the fareway it is deepe 16 and 17 fathom.

About C. de Barfleur and Sherborough foure leagues from the Iſland, it is deepe thirty fathom.

Barfleur is a high point, below upon the white land ſtandeth a flat tower, two milles, and ſome little houſes; and to the weſtwards of it is more white land.

Upon Cape de Hague ſtandeth a caſtle, with a little turret; a little to the eaſtwards of it in the land ſtandeth a ſharp tower. Two leagues to the eaſtwards off it lyeth Skerborough with a flat ſteeple.

Betwixt Winchelſea & Picardy in the middeſt of the channell it is deepe 26 and 27 fathom, upon ſuch depth men may ſee Fayerly and the land of Dover.

Without Beachy thwart of the ſeven Cleeves it is deepe 28 and 39 fathom.

Courſes & Diſtances.

From Callice-cliffe to Blackneſſe ſ. w.	one great league.
From Blackneſſe to the Oldman, ſouth	2 leagues.
From Blackneſſe to Somme ſouth	14 leagues.
From the Oldman to the Somme ſouth	11 leagues.
From the Somme to Treſport w. ſ. w.	7 leagues.
From the Oldman tot Deep ſ. ſ. weſt.	18 leagues.
From Treſport to Diep ſouthweſt and by w.	4 leagues.

From Diep to Fecam, w. ſ. w. 10 leagues.
From Fecam to Struyſaert ſ. w. and by w. 3 leagues.
From Struyſaert to Seynhead, the courſe is ſouthſouthweſt two great leagues.
From Seynhead to Caen in the Foſſe, the courſe is southweſt and by ſouth 8 leagues.
From Seynhead to C. de Barfleur or Chierenburgh w. and by north 19 leagues.
From Blackneſſe to Diep ſouth and by weſt 22 leagues.
From Blackneſſe to Struyſaert, or C. de Caux, ſouthweſt & by ſouth 31 leagues.
From Blackneſſe to the Caskets, the courſe is weſtſouthweſt 54 leagues.
From Blackneſſe to Wight w. ſomewhat ſoutherly, 371.
From Blackneſſe to Beachy weſt 18 leagues.
From Diep to Wight, the courſe is w. n. w. 36 leagues.
From Diep to Beachy northweſt and by north 25 leagues.
From Diep to Dover north 27 leagues.
From Seynhead to Diervliet, or the poynt of Sherburg weſt and by north 19 leagues.
From Seynhead to Portland n. w. and by w. 38 leagues.

From Struyſaert to the eaſt end of Wight, northweſt ſomewhat northerly. 29 leagues.
From Struyſaert to Beachy, north 26 leagues.
From Struyſaert to Fairlee, north & by eaſt, ſomewhat northerly 29 leagues.
From Struyſaert to the poynt of Dover, the courſe is n. northeaſt 35 leagues.
From Caen to Dierfliet, or the poynt of Barfleur northweſt 16 leagues.
From Dierfliet to Cape de Hague w. n. weſt 8 leagues.
From Dover to Dongie Neſſe ſ. w. and by weſt 8 leagues.
From the Neſſe to Fairlee w. ſ. w. 3 leagues.
From Dongie Neſſe to Beachy w. ſ. w. 7 leagues.
From Fairlee to Beachy ſ. w. and by w. 5 leagues.

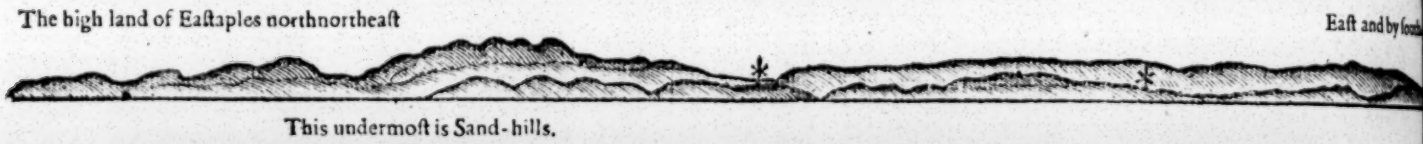
Heights.

The Heads and Dover lye in 51 degr. 12 min.
The Somme lyeth in 50 degr. 6 min.
The point of Struyſaert in 49 degr. 35 min.
Beachy lyeth in 50 degr. 50 min.

How theſe Lands doe ſhew themſelves at Sea.



From Callice-cliffe unto beyonde Bulleyn, the land ſheweth it ſelfe thus, when you ſayle alongſt by it.



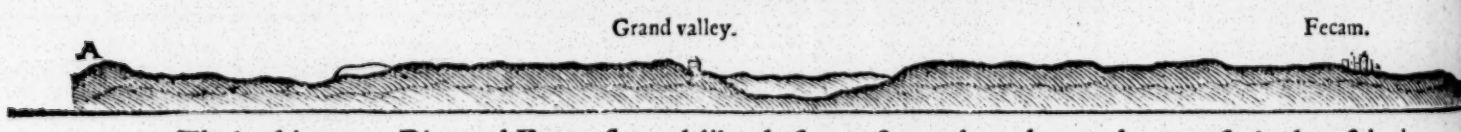
Thus ſheweth the land betwixt Eaſtaples and the Somme, when the high land is northnortheaſt from you.



Thus ſheweth the land to the ſouthwards of the Somme, towards Diep.



Theſe two figures belong at the A A one to the other.



The land between Diep and Fecam ſheweth like theſe two figures here above, when you ſayle alongſt by it, two or three leagues without the land.



The forme of Struyſaert, and Seynhead, when you ſayle alongſt by them.



Thus ſheweth the land or Caen, when you are foure leagues off from it.



Thus ſheweth the land of Sherborough, and the land to the weſtward or it towards C. de Hague, when it is ſoutheaſt 4 leagues off from you



Thus ſheweth Dover when you ſayle to the weſtwards of the Vaen, or Vrouw-ſand, through the Heades.



Thus ſheweth Fairlee, when you ſayle alongſt by it



Thus ſheweth Fairlee when you come from the weſt.



Beachy ſheweth thus when you come from the weſt.

The

Duytſche mylen 15 in een graet
Spaenſche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een g

Pont Orſum
Dinant
Aurentie
Complence
Granville
La Freye
de Sauſee
Gaure
Mortesum
Buſkin
Eckeron
Buſ
Jarzee
Cde Vorhat
Pierre ſack
Pierre d'Oſtera
Sarck
Arck
Garnzee
Cd Grife
Garnzee
Ornay
Ras van
Barroches
Caſſettes oſte
Kaſſeßen
Poortlant
Ras van Poort-
land
Slor
Watermuth
Benit
Porterieux
Bryack
Canyn
Pickels
Rockeduue
Goutſtar
Dortmuyen

De Cuſten van

BRETAIGNE,

Waer in vertoont wort alle gelegentheyt tuſſchen Caap de Hague en 't Eylant Heyſſant:

't Amſterdam,

By Iacob Theuniſz. op 't water inde Lootsman.

R E T A I G N E.

Le Fou
Landernau
Brest water
Morlions
S. Lan de Dry
Laninon R.
Bazyn
Crodun
Foukenessen
Colengier
Reckens
Matheus hoec
S. Matheus
Conquet
Conquets Anv.
le Bel
Blanc-bay
Halman
Heyssant
Noord Vlagels
Vuyd hagels
Morlaix
Oosster gat
Wester gat
S. Paul de lion
Plaingoul
Roscou
Oosster gat van Roscou
Isle bas
Roche blanche
Obrurac
Dorsal
Pacomptal
Pimic
le Jeun
Laurens
50
48
55
42
40
38
45
51
52
57
56
58

The ſecond Demonſtration.

Where in

Is decyphered the Coaſt of Brittannie, from the Iſland of Ornay to the Iſland of Uſhant.

Cape de Hague.

TWo leagues weſt and by north from Cape de Hague, lyeth the Iſland Aldernay or Ornay, betwixt them goeth the Race of Blanckert through.

Ornay. The Race of Blanckert.

Aldernay or Ornay is about three leagues long, and lyeth eaſt & weſt. The eaſt end is cleane, men may ſayle reaſonable cloſe alongſt by it, but the weſt end is very foule: There lye ſome little Iſlands cloſe by the weſt end, being paſſed them, men may ſayle towards Jarſey without any feare.

To the ſouthwards of the foreſayd little Iſlands at the weſt end lyeth of a ledge of rockes within it, on the ſouth ſide it is cleane, except at the ſouth point, that is alſoo foule. Hee that will anchor on the ſouth ſide of Ornay, muſt bee mindfull thereof, & anchor a little to the eaſtwards of the Tydehaven.

From the weſt end of Ornay lyeth a great multitude of rockes weſt and by north, & weſtnorthweſt off three leagues into the ſea.

Upon the outtermoſt and weſtermoſt end, lyeth a great high rock with many other ſmaller rocks about it. Halfe wayes betwixt this great rocke and Ornay lyeth another great rock, but not ſo high as the foreſayd weſtermoſt, from it lye off a multitude of rockes towards the outermoſt, which fall dry at low water, but at high water many lye under water. Theſe two great rockes are cal-
Caskets led by the French Les Caſquettes, and by the Dutch the Kiſkaſſen, and by the Engliſh the Caſkets. Cloſe by the weſt end of Ornay, towards the Caſkets, lye other two
Barroches. great ranes of rockes, called the Barroches.

From the eaſt point of Ornay to the eaſt and of Garneſey (about to the ſouthwards of Ornay) the courſe is weſtſouthweſt, 9 leagues; but from the Caskets to the weſt end of Garnſey ſouthweſt and by ſouth, 6 leagues.

Ital. Isle de Serſey

If you will anchor under Garnſey (comming from the Caskets) then runne on to the northeaſt point of Garnſey, and ſo farr to the eaſtwards of it, untill you get ſight of the caſtle that ſtandeth upon the rock on the eaſt ſide of Garnſey. Or if you come about to the weſtwards of the Caskets, then goe on ſoutheaſt, or ſomewhat more ſoutherly, untill the northeaſt point of Garnſey be ſouth and by weſt from you, ſayle them towards it, till you ſhall come in ſight of that foreſayd caſtle upon the rocke. Bring that over the ſouth point of Garnſey, and ſayle in upon that marke, betwixt the Iſland Arem or Harm, and Garnſey, untill you come by the foreſayd Caſtle; betwixt theſe Iſlands it is on both ſides of rockes, where of you muſt take good heed, eſpecially on the larboard ſide towards Arem, when you are come by the caſtle, you may anchor within or without it, where you pleaſe, without the Caſtle in 12 or 13 fathom, or within the Caſtle (that is betwixt the Caſtle and Garnſey) in ſix or ſeven fathom at low water. It doth flow there ſix or ſeven fathom up and downe which men muſt reckon upon.

Under the ſouth ſide of Garnſey men may ride for northweſt, north, and northeaſt windes. If you come from the weſt, or fron the Caskets, you muſt runne cloſe about by the ſouthweſt point, called C. de Gruſe; and alongſt by the ſouth ſide of the Iſland, well halfe wayes the Iſland, and anchor there where you think good, in eighteene or nineteen fathom. If the wind ſhift to the ſouthweſt, or to the weſtſouthweſt, then you may runne about by the ſouth point unto the foreſayd Caſtle, and anchor there either without or within it, as here before is ſayd. From the aforeſayd ſouth poynt, lyeth off a little ledge of rocks, where of ſome rocks lye above & ſome under water, theſe you muſt avoyd when you ſayle about by it.

South & by weſt, and ſouthſouthweſt about eight leagues from Garnſey lyeth a great ledge of rockes, more then a league great, called Rockeduves. Rockeduves.

About 2 leagues ſoutheaſt from Garnſey lyeth the Iſland Sarck, there men may anchor round about it in five and twenty, ſix and twenty, and ſeven and twenty fathom. From the north end lye of ſome Rocks, whereof ſome lye above, and ſome under water. At the ſouth end here of lye alſoo ſome rockes, but all above water. Sarck.

Betwixt Garnſey and Sarck lye two other little Iſlands, Arck and Arem, or Harm, there men may ſayle through betwixt them. Arck. and Arem.

The Iſland Jarſey from Garnſey ſoutheaſt diſtant 7 leagues, rount about this Iſland are good roades at divers places. All alongſt the north ſide men may anchor in 10 & 11 fathom. At the ſame northſide, ſomewhat within the weſt point, lye ſome great rockes, a good wayes of from the ſhoare, called the Pater noſters, or Pierreleg. Pater noſter.
At the ſouthweſt point lye many rockes which lye of a great wayes into the ſea, to the northwards of them, to wit, betwixt them and the weſtermoſt poynt, at the weſt ſide of Iarſey men may anchor at divers place in ten, eleven & twelve fathom. At the ſouth ſide of Iarſey is alſoo a good road for a northweſt & w. n. w. Windes. At the eaſt ſide lyeth Seint Catherines baye, there is alſoo very good roade for weſterly windes. S. Catherines Bay.

The weſt end of Iarſey and Saint Maloes, or the Iſland Siſember before Saint Maloes lye ſouth and by eaſt, and north and by weſt, eight or nine leagues aſunder. About halfe way betwixt both right in the fareway, lye a great number of high rockes together, which containe in circuit in ſaylingh about, ſeven or eight leagues, called the Mankiers, they lye farre towards Iarſey, ſome above and many under water, ſoo that it is not without great danger to runne through betwixt Iarſey & the Mankiers. Mankiers Rockes.

When men will ſayle through the Race of Blanckaert, bound for S. Maloes, they run commonly through betwixt Sarck and Iarſey, may alſoo ſayle to the eaſtwards of all the Iſlands and ſhoals alongſt the coaſt of Normandy, towards S. Maloes in manner as followeth.

When men come a little paſt the C. Voorha, they ſhall meet (thwart of the Iſland Iarſey) with three or foure high rockes, called Le Beuf, men may runne to the weſtwards of them, and ſo through betwixt them and the Iſland Iarſey, or els to the eaſtwards of them alongſt by the mayn land, even as they will, towards the riffe of Mortefaim, that lyeth upon the coaſt of Normandy ſouthſouthweſt, 8 leagues from Cape de Voorha. Le Beuf.

Over againſt, or thwart of the Riffe of Mortefaim, lyeth a rane of rockes lying eaſt and weſt more then a league in length, called Beufkin, at the eaſt end many of them lye above, & at the weſt end moſt of them lye under water. Men muſt ſayle through betwixt them and the riffe of Mortefaim that are bound for Granville. Beufkin.

Betwixt the foreſayd rockes Beuf and Beufkin, lieth another great rane of rockes, called Eckerof, which lye of from the ſoutheaſt point of Jarſey towards Granville, you muſt leave all theſe rockes on the ſtarboard ſide, & run alongſt to the eaſtwards of them. Eckerof.

From the riffe of Mortefaim to Granville, the courſe is ſouthſoutheaſt, and from Bufkin ſoutheaſt 4 leagues.

Granville. Cape de Voorha & Granville are two points that lye without the other land. About the ſouth point of Granville lye two or three little rockes; along by them men muſt run in within a Pier or head, where the ſhips lye dry at low water. Betwixt cape de Hague, and Grandville men may ſee upon the land many little houſes, mills, & trees, as they ſayle alongſt by it. A little to the ſouthwards off the riſe Mortefaim ſtandes a Church with two ſteeples, called Quotanſe. All alongſt this whole coaſt is every where good anchorage in 6 or ſeven fathom, eſpecially a little to the ſouthwards of Cape de Hague.

About two leagues weſt from the point of Granville lyeth another great rane of rockes two great leagues long, lying eaſt & weſt, called La Shauſee; betwixt them & the point of Granville men muſt ſayle through that are bound for Concalle or S. Maloes. La Shauſee.

About five leagues to the ſouthwards of Granville, in a great baye, lyeth an Iſland before the river of Avrantie about a league without the land, called Mound de S. Michiel, upon it lyeth a Caſtle, or little towne, called S. Michiel, with a high Tower which men may ſee at ſea. This Bay is to the ſouthwards of Granville, within the rocks of Concalle, very flat and riſing ground, from thirteene, tenne, eight, ſixe and foure fathom to one fathom, ſo that at low water the Bay falleth ſoo farre drye, that from the ſtrand men ſee non ſea nor water. Mount de S. Michiel.

Concalle. From Granville to the point of Concalle, the courſe is ſouthweſt 5 leagues, from that eaſtwards lye three rockes, under which men may anchor in ten fathom. For to ſayle to the town men muſt run in betwixt the poynt & the foreſayd rockes. It is betwixt them both eight and nine fathom deepe. Before the towne it is ſhoaler water. To the northwards of the Towne lye other two rockes, there men may alſo anchor under in 5 and 6 fathom water.

From the outermoſt rockes by the poynt of Concalle untill you come before S. Maloes, the courſe is weſt, & weſt and by ſouth 5 leagues.

S. Maloes. Siſember. Before the haven of S. Maloes, lyeth an Iſland, called Siſember, upon the weſt end there of ſtandeth a mill, and upon the eaſt end a church with ſome little houſes being a Friery, comming out of the ſea, you can but even ſcarce ſee the Church, but being within the Iſland you may ſee it better, becauſe it ſtandeth on the ſouthſide of the Iſland. A great ſhot of a eaſt peece to the eaſtwards of Siſember lyeth a great high rock, called the Meuwſtone: betwixt them and Siſember it is all full of rockes and ſtones, which at high water lye moſt under water: there is a little channell betwixt them both, which the French-men uſe with their ſmal ſhipping, through betwixt the rockes, but is not to be uſed with great ſhipping, neither by them that are not very well acquainted with it. Meuwſtone.

Betwixt the Meuwſtone, and ſome other rockes to the eaſtwards off it lyeth in a channell ſouth and ſouth and by eaſt, called la Congie. For to ſayle in there you muſt runne in cloſe aboard to the eaſtwards of the Meuwſtone, ſoutheaſt and by eaſt right in with the towne, untill you bee gotten in two third parts of the diſtance (betweene the Meuwſtone and the Towne) from the Meuwſtone, & are one third part of the diſtance from the Towne, that is when the Meuwſtone is twice ſo farre from you as the Town, then you ſhall ſee by the northweſt point of the Town two great rockes, about a caſt peece ſhot from the foreſayd point; upon each rock ſtandeth a little houſe, the outermoſt is the ſmalleſt, & is called the little Bee, the neereſt to the Towne is the greateſt, and is called the great Bee, ſaile then towards them, and run in about them within a cables length of them, but keepe that courſe ſo long, untill that the little Tower (that ſtandeth a little to the ſouthwards of the towne upon the point (come over the tower of Bore a little to the eaſtwards of Saledoor, keepe them one over the other, and ſayl ſoo in, unto the ſoud end of the town, where the mils doe ſtand, then you ſhall ſee there upon the rocks two beacons, run betwixt them through at high water, untill you come within the towne, at the eaſt ſide, the ſhippes lye moored with foure cables, dry at low water, two faſt on the towne, & two upon the ſand. Betwixt theſe two foreſayd beacons, to the ſouthwards of the town, and thereabouts, is the ground ſharpe, rockie and ſtonie therefore men muſt take heed not to ſtay there at low water, or to ground there, but within on the eaſt ſide of the town it is cleane ſandie ground, there may the ſhippes lye a ground without danger. La Congie. The little and great Bee.

A little within, or to the ſouthwards of the foreſayd rock the little Bee, men may anchor in five or 6 fathom water at low water, ſo that the tower of Bore commeth little to the eaſtwards of the little Tower upon the point to the ſouthwards of the Town, that road is called by the French La Ranſe, there men commonly firſt anchor, and ſtay for high water, for to goe in about to the ſouthwards of the Towne. It floweth here at S. Maloes, & thereabouts, 7 fathom up and downe with an ordinary tyde. The Roade Ranſe.

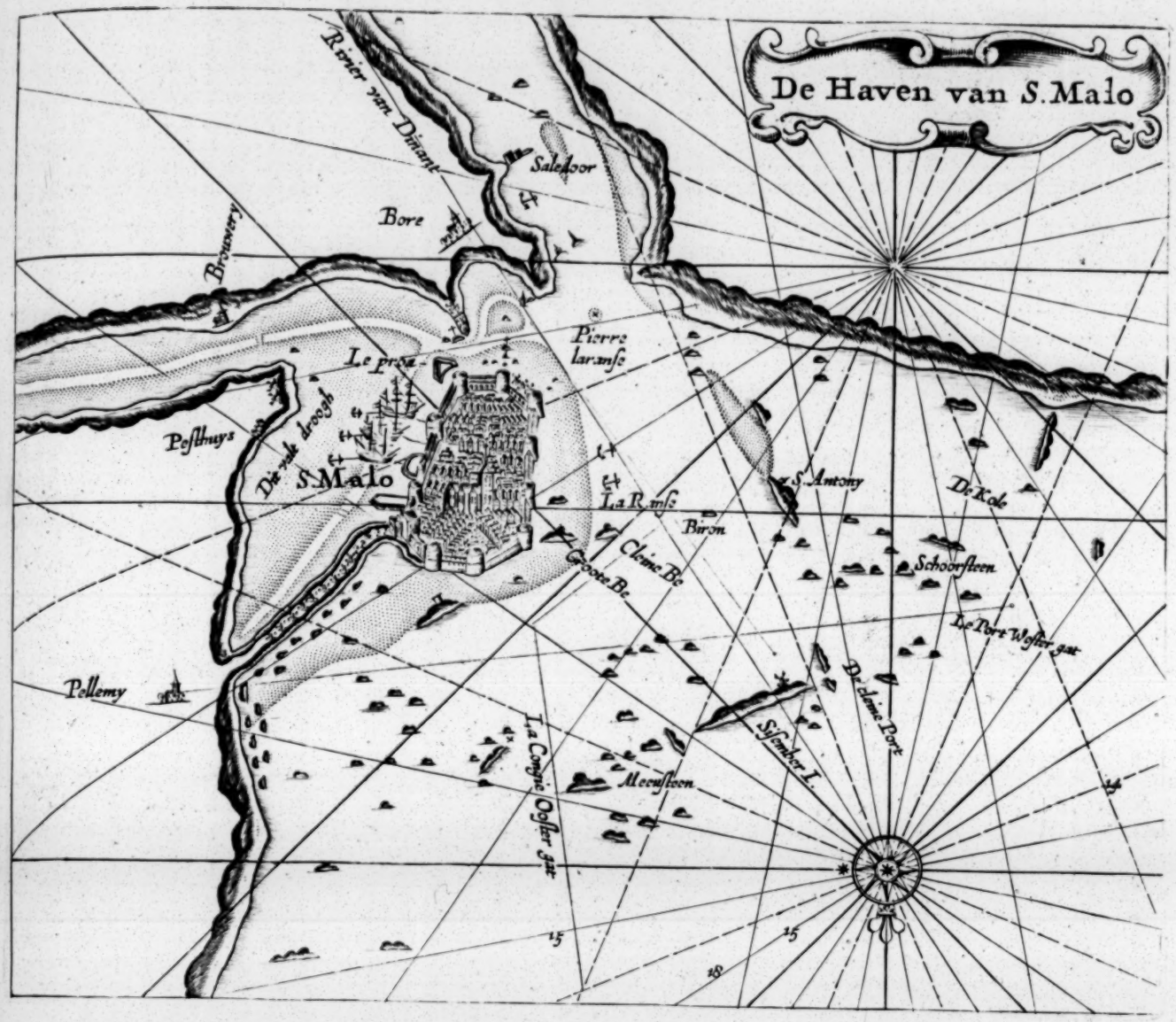
From the weſt end of Siſember, lye off alſoo a great many rocks alongſt to the weſtwards, more then a great ſhot off a caſt peece, at the end of them goeth in the Weſter-channell of S. Maloes, eaſt and by north in. For to ſayle in there, you muſt look out for a ſharp little Tower, that lyeth ſomewhat to the northwards or to the eaſtwards of S. Maloes, within the land called Pellemy, when you have brought that eaſt and by north from you, then you ſhall ſee upon the ſhoare right againſt it, a great black rocke, which for Blackneſſe ſheweth it ſelfe without all the other rockes thereabouts, and thereby is very eaſy to bee knowne. Bring that rocke & the foreſayd little Tower one to the other & ſayle ſoo right in untill you come thwart of the Iſland Siſember, or els that the little Tower (upon the point to the ſouthwards of the Towne) come to the Tower of Bore, to the eaſtwards of Saledoor, ſayle then towards the roade of La-Ranſe to the ſouthwards of the little Bee; or els if it be high water, you may run in upon the markes, and then in about to the ſouthwards of the Towne, as here before is ſayd.

When you ſaile into this weſterne channel, you ſhal leave on the ſtarboard ſide a high rocke (called the Schoorſteen) with more other rockes to the weſtwards of it, which at high water are moſt of them over flowne. On the north ſide, that is on the larboard ſide, lye alſoo many rockes, where of many of them are overflowne at high water, and alſo many remaine above water.

Yet a ſoutherne channell lyeth in by the land to the ſouthwards of the rock of S. Antony, upon marcks that men may ſee a ſtearne the ſhip, but it is not uſed but with ſmall ſhips.

About halfe wayes betwixt the weſterne channell of S. Maloes, and C. de Farela, lyeth a ſtony banck under water. A little to the weſtwards of C. de Farela, lyeth a great rock. When you will ſayle from C. de Farela towards S. Maloes, and that you keepe the foreſayd rock right upon the poynt of Farela, you ſhall ſo (without faile) ſayle upon the Stone-banck: but if you keep the rock hidden under or behind the poynt, then you ſhall ſayle alongſt to the ſouthwards of it. Or elſe if you keep it without the point (ſoo that you may ſee through betwixt it & the point) then you ſhall ſayle alongſt to the northwards off it. The foreſayd rock is a good mark for to know Cape de Farela by.

S. MALOES.



Foure leagues weſt from S. Maloes lyeth a great Sand-bay, where men may lye landloek for all windes: Men uſe to anchor within a great rock, right againſt a mill and ſome trees.

About two leagues northweſt from that Sand-bay lieth the Cape de Farela, which is alſoo called Cape de Late, after the Caſtle de Late, that ſtandeth to the eaſtwardes of the poynt, there is a good Roade for weſt & ſouthweſt windes.

Two great leagues northweſt from the entry of the Haven of S. Maloes, lyeth the Oyſterbanck, there under it men may anchor in 6 or 7 fathom.

Tothe weſtwardes of Cape de Farela unto the north-end of the Iſland Briack, the courſe is weſt and by north nine or ten leagues. Two leagues from the land weſt from the Cape lyeth a great rane of rockes above water. Betweene the foreſayd Cape and the Iſland Briack lye the Havens or Rivers of S. Brieux and S. Benit.

The Iſland Briack is two leagues long, & lyeth ſouth-ſouthweſt and northnortheaſt, when you kome from the eaſt, you ſhall ſee two mills upon it, and betwixt them a high round hill, with a little houſe upon it: you may ſail round about this Iſland, and may make roades on every ſide where you will, although round about it here and there lye ſome rocks, yet it is all over good anchor-ground. A good wayes off from the northeaſt point lyeth a rock, called Souffe, and at the north end lyeth a ledge of rockes under water, where of you muſt take heed.

A gread league weſtſouthweſt from Briack, three or foure leagues a ſeaboard the land, lye the out-rockes, called the Pickeles, men may ſayle round about them alſo, but to the eaſtwards of them towardes the main land, lye many ſuncken rockes.

Foure leagues to the weſtwards of Briack lyeth the Port Blanck upon a great river, called Lantrilliers, to the eaſtwards of this haven lye off many out-rockes. Port Blanck Lantrilliers.

To the weſtwards of Port Blanck, lye the Sept Iſles, or ſeven Iſlands, lying from the Pickels diſtant five leagues eaſt and weſt. A league to the ſouthwardes of them lyeth the Greenland, there you may ride round about it. Betweene the ſeven Iſlands you may not ſayle through, but to the ſouthwards of them, betwixt them and the Green Iſland goeth a broade channell through. From the eaſtermoſt Iſland lyeth off a fowle riffe to the ſoutwards, upon the outermoſt end of that riffe lyeth a rocke, as a good marke for to ſayle about the riffe. Northweſt from the weſt-end of the ſeven Iſlands, lyeth alſoo a ſuncken rock, which at low water may be ſeene. Men may alſoo ſayle alongſt by the coaſt from Port Blanck, within to the ſouth-wardes of the Green Iſland, and come out againe into the ſea to the weſtwards: from thence northweſt off into the ſea, lye the Triacle Pots, theſe are great feare full outrockes, which lye ſpred wyde and broade weſtſouth-weſt from the ſeven Iſlands, and foure or five leagues a ſeboard the land. Seven Iſles. Greene Iſland. Triacle Pots.

Betwixt the Triacle Pots and the ſeven Iſlands lyeth the River of Laminoe, to the weſtwardes of the Greene Iſland: For to ſayl in there, men muſt take good heed of the northeaſt poynt, which is fowle. R. Laminoe.

Thwart of the ſeven Iſlands, upon the maine land, ſtandeth a Church with a high ſteeple, called Our Lady of the Clearneſſe, thereby men may know them.

Thwart of the Triacle Pots ſtandeth alſoo a high Tower, thereby men may know when they are neere them, but it muſt be very cleare weather before men can well diſcerne it upon the land.

Hee

Hee that commeth by night or darke weather from the Fourne, or Uſhant, and is bound to Saint Maloes, let him not goe with a ſoutherley winde, to the eaſtwardes of eaſt-northeaſt, or northeaſt and by eaſt with a weſterly winde, ſo long untill hee hath the length of the Triacle Pots, thath they bee on his broad ſide. Thee flood falleth ſoutheaſt within the Triacle Pots and the ſeven Iſlands, and ſhould by night eaſily draw a ſhip towards them. By day, or when there is ſight, there is no ſuch danger.

Within the Triacle Pots lyeth the tyde-haven of Saint John de Doy, two leagues to the weſtwards of the Green Iſland, and two leagues to the eaſtwards of Morlions, men may ſayle from thence through the rockes unto Morlions, and anchor in five and ſixe fathom at low water.

Morlions. To the weſtwards of the Triacle Pots lyeth a great rock, the eaſterne entry of Morlions lyeth from it ſouthweſt and by ſouth diſtant two leagues, but the weſterne entry lyeth from it weſtſouthweſt & weſt and by ſouth foure or five leagues, that goeth in by a great long ragged rock. This entry men may ſayle in ſouth, & ſouth

Morlaix. and by weſt, unto the caſtle of Morlaix; being about the caſtle they may run through the rocks againe to the eaſtwards, and runne out againe at the eaſterne entry northnortheaſt, and north and by eaſt into ſea, according as the tyde ſhall be, the flood commeth there out of the northweſt.

If a man would goe from Morlaix to Morlions, hee may goe on eaſt through the rockes, and ſo ſayle to it: It is al broken land, and there remaineth at low water five fathom depth.

S. Paul de Lion. If you are bound to S. Paul de Lion, you muſt run right with the great rock, with the two horns or Sadle, and ſo cloſe alongſt by it: being paſt it, edge to the land upon the ſtrand lyeth a village, called Plempoll, ſayle right with it, & alongſt by it, to the eaſtwards of it goeth in the River. Theſe are all tyde-havens, but betwixt the rockes of the Morlions, and the Iſlands Bay, it is at lowe water deepe enough for to ſave a ſhip.

The land of S. Paul de Lion is double land, upon S Pauls Church ſtand two ſharpe ſteeples. The Iſland Iſle de Bas, lyeth thwart before it, upon it ſtandeth two ſtakes, to ſee to a farre off like milles. Upon the eaſt end of that Iſland lieth a very high ragged rock, when you are to the eaſtwards of this rock, you ſhal ſee two ſharpe ſteeples a little one from the other, theſe are the ſteeples of Plempolle: you may alſo then ſee the Caſtle of Morlaix, lying ſoutheaſt from you, upon a high rock.

Iſle de Bas. The foreſayd outermoſt long ragged rocke of Morlaix, lyeth from the top of the Iſland Iſle de Bas, eaſt and eaſt and by ſouth three or foure leagues. Men may ſayle alongſt by the maine land within and through theſe rocks, until they come to the ſeven Iſlands, they are all great bayes, where in moſt places is good anchor ground.

Five greate leagues north and by eaſt of Iſle Bas and ſouthweſt and by weſt 27 leagues, from the Caſkets,

Roche Blanche. lyeth a dangerous rocke or Cliffe called Roche Blanche, and lyeth from ſeaven Iſlands weſtnorthweſt 9 leagues.

Roskow. Within the Iſle de Bas lyeth the town of Roskow, you may ſayle into the haven of Roskow on both ſides of the Iſland.

For to ſayle into the eaſterne channell, when you are paſſed by the high rocke with the ſaddle, or two hornes called Le Taureau, and come by the land, betwixt the eaſt poynt of the Iſland, and the poynt of the maine land over againſt it, you muſt ſayle ſtill keeping the middle of the channell. It is in this channell 7 and eight fathom deepe. Being come within the poynt of the Iſland, you muſt runne in about by it, weſt & by ſouth, & weſt on, untill you come about halfe wayes within the Iſland, and anchor there in eight or nine fathom. And then Roskow ſhall lye ſouth and ſouth and by eaſt from you.

If you will ſayle into the weſterne channell, you ſhall ſee to the weſtwards of it, cloſe by the maine land two great long rockes. From the point of the maine land, a little to the eaſtwards of the eaſtermoſt long rocke, lyeth of a riffe from the land, which maketh the weſt ſide of the channell, you muſt runne in ſoutheaſt betwixt that riffe and the weſt poynt of the Iſland, & when you come within the poynt of the Iſland, you muſt edge up northeaſt unto the middeſt of the Iſland, & anchor there as here before is ſayd.

From Iſle de Bas alongſt to the Fourne or Uſhant lieth the coaſt weſt ſouthweſt 16 leagues.

From the Iſland Iſle de Bas unto the Fourne, (the outermoſt or weſtermoſt end of the maine land of Britaigne) the courſe is weſtſouthweſt, and weſt and by ſouth thirteene leagues. About halfe wayes betwixt them both lyeth Obbevrack, or Abberwrack.

About a league northweſt without the rockes of Obbevracke or Abberwracke lyeth a rane of Rockes under water. They that by night wil ſayle or turne to windwards from the Fourne or towards the Fourn, let them not come thereabouts nearer the land then in 45 fathom. Abberwrack. The Fourne.

A league to the eaſtwards of the Fourne, & all alongſt the coaſt even unto the Fourne, lye many longh black ragged Rockes, in many places appearing like Villages, theſe are called the Ovens, within them on the maine land (which is not very high) men ſhall ſee (ſaylinga longſt by them) many white ſand-bayes, and here and there ſome little houſes, whereby the foreſayd land thereabout is very eaſy to be knowne.

The Fourne and Uſhant lye weſtſouthweſt & eaſtnortheaſt diſtant two great leagues. Uſhant ſheweth it ſelfe at ſea at the ſouth-end low, and at the north-end going up ſloaping, upon the midſt of it ſtandeth a little flat Tower, by which markes it is good to be knowne. The Fourne.

Of the Tydes and Courſes of the ſtreames.

At Cape de Hague by the ſhore, a ſouth and by e. moone maketh high water.

In the Race of Blanckert a north and by eaſt, & ſouth and by weſt moone. The flood falleth through the Race northeaſt, and the ebbe ſouthweſt.

In the Iſlands alſo a north and by eaſt, and ſouth and by weſt moome maketh a full ſea. Men cannot well reckon the tydes there: becauſe they have divers courſes about the Iſlands, but for the moſt part northeaſt & by north. A quarter of the tyde, the flood falleth thwart into the Caſkets.

In Garnſey a north and by eaſt, and ſouth & by weſt moon maketh full ſea.

At Concalle & Granville a weſtnorthweſt moone.

At S. Maloes en eaſt & weſt moone maketh high water.

The flood falleth in there at the weſterne channell, & goeth out againe at the eaſterne channell, men muſt reckon there upon when they will ſayle into theſe channels.

From the Iſland Briack in the bay of Benit, the flood falleth ſoutheaſt, but in the fareway eaſtſoutheaſt, and weſtnorthweſt.

At the eaſt-ſide of the Iſland Briack in the road ſouthſoutheaſt. An eaſt and weſt moon maketh there the higheſt water.

Betwixt the Iſland Briack and Garneſey, a weſtſouthweſt moone maketh full ſea, the flood runneth there eaſtſoutheaſt, and the ebbe weſtnorthweſt.

On the coaſt, & within the Caſkets, the tyde runneth continually againſt the Sunne, ſo that it is there never ſtill water.

Betwixt Sept Iſles, or the ſeven Iſlands, and Garnſey in the fareway, a weſtſouthweſt moone maketh full ſea.

Betwixt Briack and the ſeven Iſlands, an eaſt and by north, and weſt and by ſouth moone maketh full ſea. The flood fulleth there eaſt and eaſt and by ſouth.

Betwixt

Betwixt the ſeven Iſlands and the outer rockes of Morlions, the flood falleth in ſoutheaſt within the Triacle Pots towards the Green-Iſland, but in the fareway in the offing, eaſt and eaſt and by north.

At Morlaix and S. Pauls a weſt and by ſouth Moon, maketh the higheſt water, but in the fareway in the offing thwart of it, a ſouthweſt, and by weſt, and weſtſouthweſt Moone.

At the Iſle de Bas maketh high water a weſt and by ſouth Moone.

In the fareway there in the offing, the flood falleth e. n. e. and the ebbe w. ſ. w. and ſo likewiſe from thence all alongſt the coaſt of Bretaigne, unto the Fourne or Uſhant.

At Abberwrack an e. n. e. and w. ſ. w. moone maketh full ſea without Uſhant a weſtſouthweſt, and eaſtnortheaſt moone, and within the Trade a ſ. w. and by w. moone maketh full ſea.

Of the Depths about theſe places, and in wath depths men may ſee the land.

Upon Cape de Hague ſtandeth a caſtle, with a little turreth; a little to the eaſtwards of it in the land ſtandeth a ſharp Tower. Two leagues to the eaſtwards off it lyeth Sherborough with a flat ſteeple.

The Iſland Ornay is upon the weſt end high with a ſteep going down poynt: The eaſt end is hilly, or with hommocks, but lower then the weſt end, in ſayling by it, men may ſee upon it a Tower or two with ſome mills. Upon the north ſide of the Iſland lyeth a white hill like a ſand hill.

To the northwards of the Caskets, two leagues from land it is deep 35 and 40 fathom.

Betwixt the Caskets and Garneſy it is 35 & 40 fathom deep, moſt all ſtony ground.

Northweſt about foure leagues from Garneſy is a pit whete it is 80 or 90 fathom deepe, els it is there abouts 40 fathom deep.

Betwixt Ornay and Iarſey it is deep 20 and 25 fathom.

In the fareway of Iarſey, Rockduve and the Iſland Briack, it is deep 20 and 30 fathom.

About the Triacle Pots alongſt the coaſt it is 45 & 50 fathom deep, in ſuch depths men may ſee the land thereabouts. By night it is not good to come neares that coaſt and the ſeven Iſlands, then in 45 fathom.

Thwart of S. Paul de Lion, and the Iſle of Bas, five leagues from the land it is deep 45 & 50 fathom.

Thwart of Abberwrack 5 leagues from the land, it is deep 50 and 55 fathom.

The Backovens, or the land of the Fourne, men may ſee in 50 fathom.

Uſhant being about ſouth from you, you may ſee in 50 fathom.

Courſes & Diſtances.

From C. de Hague to the outermoſt of the Caskets weſt & by north 9 leagues.
From the Caskets to Beachy n. e. & by e. 36 leagues.
From the Caskets to Wight n. e. and by n. 20 leagues.
From the Caskets to Portland north and by weſt 13 leagues.
From the Caskets to the Steart weſtnorthweſt 21 leagues.
From the Caskets to Silly weſt ſomewhat northerly 45 leagues.
From C. de Hague to C. de Voorha, ſouth & by eaſt 7 leagues.
From C. de Voorha to Granville ſ. ſ. e. 9 leagues.
From Granville to Mount Sint Michiel ſouthſoutheaſt 5 leagues.
From Granville to the poynt of Concalle, ſouthweſt 5 leagues.
From the poynt of Concalle to the eaſter channel of S. Maloes, weſt & weſt & by ſouth 5 leagues.
From the Iſland Siſember, before S. Maloes unto cape de Farrele weſt 4 or 5 leagues.
From C. de Farrele to the Iſland Briack weſt and by north 9 leagues.
From the Iſland Briack to the Pickelles w. & by ſ. 2 leag.
From the Pickels to the ſeven Iſlands, weſtſouthweſt 5 leagues.
From the ſeven Iſlands to to the Triacle Pots weſtſouthweſt 3 leagues.
From the Triacle Pots to the Iſle de Bas, weſtſouthweſt 9 leagues.
From Iſle de Bas to Uſhant weſtſouthweſt 16 leagues.
From C. de Hague to the weſt end of Jarſey betwixt Sarck & Jarſey through ſouthſouthweſt, and ſouthweſt and by ſouth 11 leagues.
From the Caskets to the weſtend of Garneſey ſouthweſt & by ſouth 5 or 6 leagues.
From Garneſy to Jarſey ſ. e. and by e. 7 leagues.
From Roche Blanche to Caskets northeaſt and by eaſt 27 leagues.
From Roche Blanche to Iſle de Bas, ſouth and by weſt 5 leagues.
From Garneſay to S. Maloes ſ. ſ. e. 16 leagues.
From the ſout end of Iarſey to S. Maloes, ſouth and by eaſt 8 or 9 leagues.
From Garneſy to the rocks Rockduves, ſouthſouthweſt 8 or 9 leagues.
From Rockduwes to Manckiers eaſt and by ſouth, 9 or 10 leagues.
From Rockduwes to C. de Farella ſ. e. 10 leagues.
From Rockduves to the rock Camine ſouth and by weſt 4 leagues.
From Rockeduves to the Iſland Briack ſout & by weſt and ſouth 6 leagues.
From Garneſey to the 7 Iſlands ſouthweſt 14 leagues.
From the Caskets to S. Paul de Lion ſouthweſt ſomewhat weſterly 30 leagues.
From the Caskets to the Fourne or Uſhant ſouthweſt and by weſt 46 leagues.
From the Caskets to the Lizard, weſt and by weſt and by north 39 leagues.
From Garneſey to the Lizard, weſt and by north 37 leagues.
From the ſeven Iſlands to the Lizard northweſt and by weſt 32 leagues.
From the ſeven Iſlands to the Steart north and by weſt weſterly 24 leagues.
From the ſeven Iſlands to Portland northnortheaſt 32 leagues.
From S. Paul de Lion to the Lizard northweſt and by north 28 leagues.
From Saint Paul de Lion to the Steart north and by eaſt 28 leagues.
From Saint Paul de Lion to Portland northeaſt and by north 39 leagues.
From Iſle de Bas to the Fourne w. ſ. w. 12 leagues.

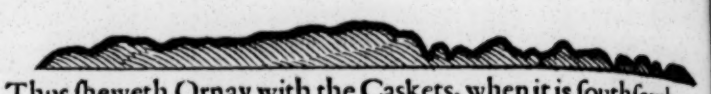
Heights.

The Caskets lye in	49 degrees. 48 min.
The 7 Iſlands, or Sept Iſles in	49 degrees
Uſhant lyeth in	48 degrees. 30 min.

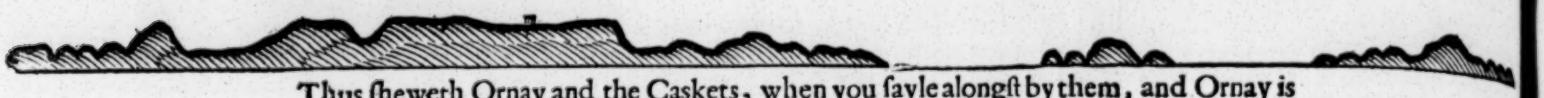
How theſe Lands doe ſhew themſelves at Sea.



Thus ſheweth Ornay when you ſayle alongſt by it foure leagues from the land.



Thus ſheweth Ornay with the Caskets, when it is ſouthſouth eaſt from you 3 or 4 leagues.



Thus ſheweth Ornay and the Caskets, when you ſayle alongſt by them, and Ornay is ſouth eaſt from you three or foure leagues.



Garnſey, being eaſt north eaſt from you ſheweth thus.



Thus ſheweth Garnſey when it is thwart from you about 4 leagues.



Thus ſheweth the land betwixt S. Paul de Lion and the Fourne, when you ſayle alongſt by it 4 leagues from the land.

The third Demonſtration.

Where in

Are delineated the Coaſts of England, from Beachy to Port-land.

TO the weſtwards of the poynt of Beachy, thwart of the weſt end of the 7 Cleeves, right againſt the Cindle, where men run alongſt by into New-Haven, men may alſoo anchor in 7 8 or 9 fathom.

A league and a half to the eaſtwards of the poynt of Beachy, neareſt e. n. e. from the poynt lyeth a little ſand, uwon which there is at low water and ſpring-tydes ſcarce two fathom.

New-haven. At the weſt end of the ſeven Cleeves lyeth the River of Cuckmer-haven, or New-Haven, which hath two entries, the weſtermoſt entry lyeth in by the weſt land, but is not to be uſed, but onely with very ſmall ſhipping, it falleth altogether dry, the eaſtermoſt is commonly the beſt, and lieth northweſt and by weſt in, there is at high water with a common tyde not more then ſeven, and with a ſpring-tyde 14 or 15 foot water, within, the ſhips lye every tyde dry: But before the village they remaine a float, there they moore with foure cables faſt on 2 green ſhoares. Upon theſe entries men cannot wel make any reekkoning, they keep no certaine depth, when it bloweth a ſtorme out of the ſouth, they are oftentimes caſt too with a chindle, and opened againe with a freſhut.

Shorum. Shorum is a tyde-haven, where is at high water and ſpring-tydes 18 foote water, but at low water, there remaineth no more then 3 foot water, ſoo that then it floweth 15 foot up and down. With a common tyde at high water there is 12 foot and at low water 3 foot depth. The town Shorum lyeth a little Engliſh mile within the haven, ſhips (that draw but 8 or 9 foot water) can lie a float a little beneath the towne at low water, or elſe they lye dry every where.

When you come from the eaſtwards from Beachy or New-haven along by the ſhoare, you may ſee open into the Haven, before you come thwart of it: But comming from the weſtward, you ſhall not ſee it open before you come right before it, becauſe the weſt poynt lyeth ſomewhat further out then the eaſt poynt. From the weſt poynt runneth off a little tayle, but at high water you may runne in alongſt over it, ot herwiſe you muſt runne in by the eaſt ſhoare. Upon the eaſt poynt ſtand 2 beacons, which you muſt bring one in the other, & run in ſo right with them untill you come by the n. ſhoare, & then in alongſt by the foreſayd north ſhoare.

At Shorum ſomtimes there are builded many great ſhips of 3 or 400 tunnes.

About ſixe leagues to the weſt-wards of New-haven lyeth Arundel, a tyde-haven, where a ſhip may go in at half flood, you muſt goe in thereby the weſt land north eaſt in. In the entry it is two, and betwixt the two lands 3 fathom deep at high water: But within the Haven remaineth at low water 4 and 5 fathom: There you muſt anchor before the village. Arundell.

Five leagues w. ſ. w. from Arundell, and 13 leagues weſt and by ſouth ſomewhat weſterly from Beachy, lye the bancks or ſhoals of the Owers under water, a great league and a halfe a ſeaboard the land. Owers.

About 2 leagues e. n. e. ſomewhat eaſterly from the ſouth ſide of the Owers, and two little leagues ſouth from Arundell lyeth a ſhoale of rocks and chindles, called Eaſt-borough-head, as great as an aker of land, which falleth (at low water and ſpring-tyde) dry, otherwiſe it commeth not above water, cloſe to it, it is 15 fathom deep. They that ſayle off from the haven of Shorum, and are bound to the weſtwards, muſt not go more weſterly then ſ. ſ. w. untill they come in 18 fathom, before they ſet their courſe more weſterly, for feare of this ſhoale. About an Engliſh mile n. w. from this foreſayd ſhoale, lyeth alſoo a ſuncken rock, whereupon at low water it is no more then 5 or 6 foot water. Eaſtborough-head.

About halfe wayes, betwixt Arundell and Selſey, runneth of a ledge of Rocks thwart to the ſouthwards from the ſhoare, about an Engliſh mile and a halfe into the ſea, called the Bogners, where of ſome of the rocks fall dry at low water, but the outermoſt are alwayes under water.

The ſhoals or banks of the Owers, lye about 4 leagues to the eaſtwards of Wight, and lye of a league and a halfe from the land, thwart of them ſtandeth a tower in the land, when that is northnorthweſt from you, then are you thwart of the ſouthermoſt part of the ſhoale; And if you keep the Culver-cliffe of Wight weſt and by north, and weſt northweſt from you, comming either from the eaſt or from the weſt, you can take no hurt of the Owers, you may run alongſt by them in twelve fathom upon your lead, The Owers. Culver Cliffe.

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng: en Fra: mylen 20 in een graet

E N G E

Pole

Hamptom

Plymouth

Slot

Slot

S Andies

Land

Smallmd

't Ras van Poortlandt

Poortlandt

Hurst east

Calshot

Hurst point

Sandwich bay

Peverel point

Ventom

De nadden

S Helens

Eylant Wicht

Wolferts hoeck

Ornay

Ornay

Cde la Hague

De Custen van

ENGELANDT

Tusschen Fierley en Poortlant; ook hoese van Ornay gelegen zyn.

t Amsterdam.

By Iacob Theunis. op't water in de Loots man.

A N D

Chechester

Arundel

Bramber

Nieuwerhaven

Ilekmerhaven

Selsey

Beveler

Wecmuthing

lead, without danger. If you ſayle away from the eaſt end of Wight, eaſt and by north, and eaſt north eaſt, you ſhall run in 12 fathom alongſt over the eaſt end of them. He that is there well acquainted, may alſo ſayle to the northwards of them, through betweene the land and the Owers.

Betwixt the Owers and Portſmouth goeth a great ſound or haven, within lieth the town of Chicheſter.

On both ſides of the Iſland Wight men may ſaile within it, and there come to anchor either under S. Ellens or before Newport where they will.

For to ſayle into the eaſtwards of Wight you muſt bring the eaſterne caſtle that lieth to the eaſtwards of Portsmouth over the Lyme-kilne (that is, a white ſpot in the land to the northwards of that caſtle) and keepe them ſo one over the other, untill that the Culver cliffe come, within or under the northeaſt poynt of Wight. Then bring the Lyme-kilne over the eaſt end of Portſmouth, & keepe them ſoo untill that the caſtle to the weſtwards of Portsmouth come to the wood: Thus doing you ſhall come neare neither plate nor ſand, to take any hurt of them, and you ſhall come ſoo by little and little before S. Ellens Church. When the Church commeth two ſhips lengths within the red poynt, then you ſhall not come too neare the riffe at the poynt. Or elſe if you cannot ſee the Lyme-kilne, then keepe the Caſtle to the weſtwards of the Culver cliffe, untill that S. Ellens Church commeth a ſhips length without the poynt of the Iſland, goe then boldy northweſt in, and you ſhall not come too neare the riffe; And then bring the ſquare Tower betwixt the eaſt end of Portſmouth, and the Caſtle: When the Caſtle to the weſtwards of Portſmouth commeth to the eaſt ſide of the Wood, then you ſhall not (as here before is ſaid) come too neare either the plate or the ſand, to take any hurt of them.

When the eaſtermoſt white ſpot ſtandeth a ſhips length to the weſtwards of the Caſtle, then you are to the eaſtwards of the riffe, and when the Culver cliffe is covered or hidden behind the n. e. point of the Iſland, then are you alſo within the riffe. The markes of the little plate are theſe, there ſtandeth a ſquare tower within the land, & a caſtle on the water ſide to the eaſtwards of Portſmouth, thwart from it lyeth the foreſayd Lime-kilne: when that commeth to the eaſtwards of the foreſayd Caſtle, ſo that you may even ſee through betwixt them both, then are you upon the little plate which at low water is not deeper then 10 foot: then ſtandeth the caſtle to the weſtwards of Portſmouth at the weſt ſide of the Wood. But when the foreſayd ſquare tower commeth to the weſt ſide to the foot of the Caſtle, & the Caſtle by weſt Portſmouth to the weſt ſide of the Wood, there it is deepe at low water upon the little plat 12 foot.

When the ſquare Tower ſtandeth betwixt the eaſt end of Portſmouth, and the Caſtle even betwixt the Lyme-pit and the Tower, and the Caſtle by weſt Portſmouth in the weſt ſide of the Wood, there it is at high water, tenne fathom deepe.

When Saint Ellens Church lyeth ſoutweſt and by weſt from you, then lyeth the ſoutheaſt end of the plate northeaſt and by north from you, and the weſt end north and by eaſt.

From the poynt of the roade Newport eaſtwards lyeth a broad ſand alongſt the ſhoale, called No mans-land, which falleth almoſt dry at low water, it is ſo ſteepe that halfe a cables length off from it, it is twelve fathom deepe: upon the high land of Wight thereabouts ſtand two or three mills. If you come neare the ſhoare, that the foreſayd mills bee hidden behinde the foreſayd high land, you ſhall not miſſe to come aground againſt that foreſayd ſand, but ſo long as you can ſee theſe mills you ſhall goe cleare of it.

The Roade of the Cowes is the beſt Roade in Wight. Over againſt, betwixt that and Calſhot Caſtle, lyeth a hard ſand neareſt the north ſhoare, lying from thence to the weſtwards alongſt the fareway, almoſt ſoo farre as thwart of Newton, called the Brambles: at low water and ſpring-tydes it falleth allmoſt dry, and then the ſea breaketh much upon it: to the northwards of it goeth alſoo a channell through, but it is not to be uſed, but with ſmall ſhipping. The Brambles.

For to ſayle in at the weſt end of Wight, you muſt runne right in with the Needles, (they are high ſharpe Rockes as Maſts lying at the weſt end of Wight) bring then the innermoſt poynt of Wight, or the Caſtle that ſtandeth upon the chindle over againſt that poynt, called Hus caſtle a little without, or to the northwards of the Needles, ſayle in there upon, untill you come to the Needles, leave them then on the ſtarboard ſide of you, and run in within a cables length alongſt by them for to avoyd the bancks which lye off from the chindle to the northwards of the Needles, of the weſt end of Wight almoſt to the Needles. Betwixt the bancks called the Swingels, and the Needles, it is not very broad, and at low water 5 fathom deep. When you ſayle in here, you muſt caſt your tydes well. The fore-flood falleth ſtrong upon the bancks. When you are then come within the Needles, then edge a little more off from the ſhoare unto Hus Caſtle that ſtandeth upon the Chindle, for to avoyd ſome Rocks which lye alongſt by the Iſland under water. Being come within the Caſtle or Chindle, there it is wyde & broad, leave two third parts of the chanell on the larboard ſide, and one third part on the ſtarboard ſide, ſayle ſoo in untill you come before the village Newton, & anchor there in nine or ten fathom, or elſe ſayle forth (if you will) about the poynt of the Cowes, and anchor there before the haven of Newport in tenne or twelve fathom, there is the beſt Roade, and the beſt lying of all the Roades in Wight. The Haven or Roade before Newpoort lyeth from the foreſaid Hus Caſtle upon the Chindle northeaſt and by eaſt, and eaſt northeaſt about two leagues aſunder. For to ſayl in at the Needles

From the Needles of Wight weſt and by ſouth about three leagues, lyeth the point of Saint Albons land, called Peverel point, from it lye off ſome little Rocks to the eaſtwards. A little to the northwards of that point is a Bay, called the Bay of Sandwitch, there is a good road for them that are bound to the weſtwards; If you will goe to ryde there comming from the weſtwards, you may take the ſounding of Saint Albons land, and runne aboard the point in foure or five fathom at a halfe flood, and you ſhall take no hurt of thoſe little rocks. Being gotten about the poynt, edge by it up to the weſtwards towards Sandwitch. A little to the northwards of Sandwitch in the Baye, lyeth a round Hommock, & thwart of it ſomewhat within the land ſtandeth a mil; bring that mill to the ſouth ſide of the round Hommock, and ſayle ſoo in untill you come in foure or three fathom, and anchor there ſoo deepe or ſhoale as you will, there it is good lying for ſouthweſt winds. Peverell point. Sandwitch Bay.

A little league north and by eaſt from the foreſayd poynt, rightweſt from the Needles of Wight, lyeth another poynt, called Handfaſt point, to the northwards of it lyeth a little Towne, called Studland, before it is alſo a good roade. Upon the outermoſt part of that point, is a hole trough the land, where men may ſee trough, and a little without the point ſtandeth a high ſteepe rocke like a Maſt, almoſt like the Needle at the weſt end of Wight. For to come to ride before Studland: you muſt ſayle about the ſecond poynt, with the hole or the ſteepe rocke, in foure or five fathom, and goe in weſtnordweſt towards Studland: a little to the ſouthwards of it lyeth a little valley, bring that weſtſouthweſt from you, and goe towards the ſhoare, in foure or three fathom and a halfe, there is the beſt roade, & lying there, you may ſee the foreſayd hole in the poynt. Handfaſt poynt. Studland

A league to the northwards of that foreſayd poynt with the hole, lyeth the haven of Poole, for to ſayle in there, comming about the foreſayd ſecond point with the ſteepe rocke, you muſt goe on northweſt, or ſomewhat more northerly, and then you ſhall ſee right a head of you, a high flat hill, which ſtandeth higher then any other land Poole.

thereabouts, keepe that betwixt the two ſhoares, and run in ſo right with it. If you muſt turne toe and againe, then ſpare not to uſe your lead, and runne not further over to the weſtwards, then that the flat hill come to the weſtland, ſo ſoone as it beginneth (as it were) to touch it, you muſt caſt about, or elſe you ſhould be faſt a ground: And after you have caſt about, runne not further over to the eaſtwards, then that the foreſayd high flat hill commeth even to the eaſt ſand-hill, which is a high, gray, ſharp ſand-hill, lying at the eaſtſide. If you keepe theſe foreſayd markes in this manner, you ſhall have there going in at halfe flood water enough, there remaineth upon the ſhoaleſt at low water, ten and eleven foote, but it floweth there no more then five foot up and downe. It floweth there twice in a tyde. A ſoutheaſt and northweſt Moone maketh there full ſea: Alſoo a ſouth & by eaſt & north & by weſt Moone once more, that commeth to paſſe by reaſon of the fore-ebbe that commeth out of Wight. When you come within the entry, go then northnortheaſt on, and keepe the beacons that ſtand on the eaſt-land on the ſtarboard from you, and runne indifferent cloſe alongſt by them. The ſhoares are on both ſides ſteepe, and the channell is not wide, without the channell it is ſhoale or flat. This is Pilots water.

Portland. From the weſt end of Wight to the poynt of Portland, the courſe is weſtſouthweſt, eleven leagues, but from Dunnoſe, the ſouthweſt poynt of Wight, weſt and by ſouth thirteene leagues.

Road under Portland. If you will goe to anchor under Portland (comming from the weſt, then come within two cables length, or a ſhot of a caſt peece about by the poynt of Portland, and being come about the ſecond poynt, edge up to the weſtwards untill you come before the caſtle, and anchor there in 7. 8. 9. 10 or 11. fathom, ſo that the poynt of Portland doe lye ſouth and by eaſt, and ſouthſoutheaſt from you, there you ſhall lye landlockt for a ſouth and ſouth and by eaſt winde. With a ſouthweſt and ſ. ſ. w. winde, men muſt be very mindfull of terrible rippeling of the race of Portland, which beginneth a little to the weſtwards of Portland, and endeth a little to the weſtwards of S. Albons. The ground in that race is alſo very uneven, & ſhoale, ſometimes ſeven, otherwhiles ten, and alſo fifteen fathom deepe.

Waymouth. About a league to the northwards of the road of Portland lyeth a little Towne, called Waymouth, with a tyde-haven, before it men may anchor in foure or five fathom.

Of the Tydes and courſes of the Streames.

At Beachy by the ſhoare before the ſeven Cleeves, the flood falleth eaſt and by ſouth, & the ebbe weſt and by north.

From Wight to Beachy e. and by n. and w. and by ſouth, thwart of Wight, before Dunnoſe, a ſouth and by eaſt Moone maketh full ſea.

At S. Ellens and the Cowes a ſ. ſ. e. Moone.

At Hampton at the kay, a ſ. and n. Moone.

Within the Needles of Wight a ſoutheaſt and by ſouth. moone.

Befoore the haven of Poole a ſoutheaſt and northweſt Moon maketh high water: alſoo a ſout & by eaſt and by weſt Moone.

Thwart of Portland in the channel a ſ. ſ. e. and n. n. weſt Moone.

From Portland to Wight, the flood falleth eaſt and by n. and the ebbe weſt and by ſouth.

Of the Depths.

Without Beachy thwart of the ſeven Cleves it is deepe 28 and 30 fathom.

In the offing thwart of Wight it is deepe 38 fathom, in ſuch depth men may ſee the land.

In the channell betwixt Portland and the Caskets it is 40 fathom deepe, when it is cleare weather, men may ſee the land on both ſides: the nearer England the ſhoaler towards the Caskets it is deepeſt.

Courſes & Diſtances.

From Beachy to the Owers w. and by ſ.	13 leagues.
From thwart of the Owers in 12 fathom unto Dunnoſe the ſouth poynt of Wight w. ſ. w.	5 leagues.
From Beachy to Blackneſſe eaſt	18 leagues.
From Beachy to Struyſaert ſouth	26 leagues.
From Beachy to the Caskets ſ. w. & by w.	36 leagues.
From Dunnoſe to the ſouthermoſt poynt of Wight, unto the Needles of Wight, weſt and by north and w. n. w.	4 leagues.
From the weſt end, or the Needles of Wight, to the poyt of S. Albons land weſt	4 leagues.
From the Needles of Wight to Portland weſt and by ſouth and weſtſouthweſt	11 leagues.
From Wight to Diep e. ſ. e.	36 leagues.
From the eaſt end of Wight to Sruyſaert ſ. eaſt, ſomewhat ſoutherly	29 leagues.
From Wight to the Caskets, ſouthweſt and by ſouth,	20 leagues.
From Portland to Seynhead ſoutheaſt and by eaſt,	39 leagues.
From Portland to the Caskets ſouth and by eaſt.	13½ leagues.

Heights.

Dunnoſe the ſouthermoſt poynt of Wight lyeth in	50 degr. 36 min.
Portland lyeth in	50 degr. 26 min.

How theſe Lands doe ſhew them ſelves at Sea.



Beachy ſheweth thus when you come from the weſt.



Thus ſheweth Beachy with the ſeven Cleves, when you come from the weſt, and ſayle alongſt by it.



Thus ſheweth the Iſland Wight, when you ſayle alongſt by it, being 3 or 4 leagues a ſeaboard the land.

Port-

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

C O R N W A L

Truro

Vaelmulven

Peryn

Penlly

Manuse

Mans east:

Doodmans hoyle

Perthaan

Gerin

Hillsort

Lezard

Ivey-yarth

Foye

Fayvel

Lillan's roat

Westsloppe

Millbrook

Egdcomb

Ramshoak

Plemmuyen

Katherine

I. Lou

Keexbroat Meuston

Meustein I. de Stan

Dor

Da

De Cuſten van

ENGELANT

Tuſſchen de twee pointen van Poortlandt en Lezard.

D E U O

Excelſer

Exmouth

Start Point

Slapton

Toeman-stonen

Tingmouth

Dortmuyen
Dartmouth

Torbay

Lyme

I. Coe

Brutenport

Poortlant

Sulquetta ofte Kiſcaſen

Barroche



Thus ſheweth S. Albons land, with Portland, to the weſtwards of it, when you ſayle alongſt by it, being to the eaſtwards of Portland.



Thus ſheweth Portland when you come from the weſtwards.



Thus ſheweth Portland, when it is north & by weſt from you ſix leagues of



Thus ſheweth Portland, when you come from the eaſtwards.

The fourth Demonſtration.

Where in

Are ſhewed the Coaſts of England, from Portland to the Lizard.

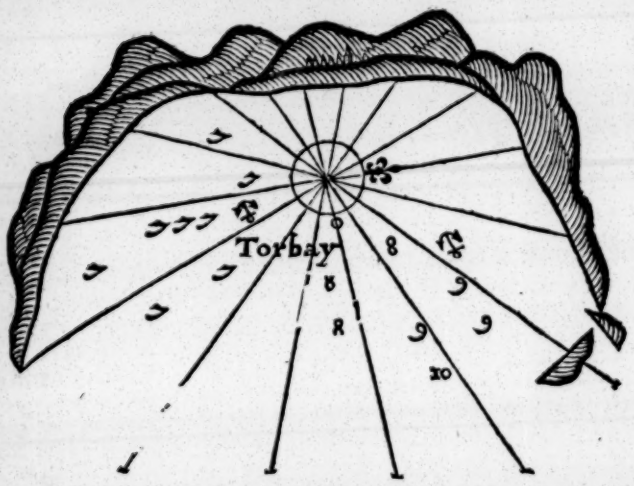
FRom Portland to Exmouth, the courſe is weſt-northweſt thirteene leagues; betwixt them both lyeth a little Iſland cloſe by the land, called Cob. Before Exmouth men may ride (at the ſouth end of the Chindle, which lyeth before the haven) in ſeven or eight fathom, ſoo that the rocks of Tomanſtones doe come to lye ſouth and ſouth and by eaſt from you, there it is good ground, and landlockt for a ſouth winde.

Cob.

Five leagues ſouth, and ſouth and by weſt from Exmouth lyeth Torbay, and lyeth from Portland weſt, and weſt and by ſouth diſtant thirteene leagues.

Torbay.

TORBAY.



For to goe into the roade of Torbay, you muſt bring the weſt poynt ſouth and by eaſt, and ſoutſoutheaſt from you, and anchor there in 7 or 8 fathom, you ſhall lye land lockt for ſouth and ſouthweſt windes. At the north-eaſt ſide of the bay is alſoo a tyde-haven before it, it is good anchor ground in foure or five fathom, according as you will lye neare or farre from the ſhoare.

Three or foure leagues ſouthwards, or to the weſtwards of Torbay, lyeth the Haven of Dartmouth, which hath a narrow entry, lying in betwixt two high lands, upon each ſide of the Haven ſtandeth a little Caſtle, in time of warres they were wont to ſhut it over with a chaine, on the weſtſide ſtandeth a little Church on the high land. For to ſayle in there comming from the Steart or from the weſtwards you muſt run in alongſt by the weſter-land, ſo farre to the eaſtwards untill you bring the kay of the village (that lyeth on the eaſt ſide of the haven) in the middeſt of the entry of the Haven, and ſayle ſo in, keeping the middeſt of the Haven betwixt the two lands, and you muſt bee very ready with the boat (if there ſhould come any ſore ſlangs from of the high land) for to row in. Being come in, edge over to the weſt-ſide, before the Brewhouſe, and anchor there in ten or twelve fathom, or before the village on the eaſt-ſide where you pleaſe.

At the eaſt-ſide of the Range lyeth a ſuncken Rock, the marks for to avoyd it are theſe. To the eaſtwards of Dartmouth is a red poynt, which below by the water is black, and in the red lyeth a white ſtone, when the white ſtone commeth over the black poynt, then are you thwart of the ſuncken Rock, but if you ſee the kay of the village and doe as before is ſayd, then you ſhall not come too neare that ſuncken rock to take any hurt of it.

Betwixt Dartmouth and the Steart, neareſt to Dartmouth ſtandeth a ſpire ſteeple indifferent high and white, called Tackman, that is a very good marke to know the haven of Dartmouth by.

The Steart lyeth from Dartmouth ſouthweſt diſtant three leagues. Under the poynt of the Steart at the eaſt ſide is a good roade for weſterly windes, betwixt the little Church that ſtandeth upon the high land, and the poynt of the Steart in tenne or eleven fathom, ſo that the poynt lye ſouthweſt from you.

Steart.

A little to the eaſtwards of the weſtermoſt poynt of the Steart lyeth a haven, called Salkom, when nou come from the weſt, it ſheweth it ſelfe open, the weſt ſide of it is ragged and the eaſt ſide goeth ſloping downe, cloſe to the weſtpoynt lyeth a rocke, or a rane of rockes, therefore you muſt give it a good birth, & leave the rockes on the larboard ſide: Further, you may ſee all breaks that can doe you hurt. Being come within the poynt, you can take no hurt of either of both ſhoares. Upon the barre or ſhoals of the entry, remaineth at low water with a ſpring-tyde, not leſſe then eleven foot water, & again within it is leaſt three fathom deep.

Salkom.

Pleymouth.

Mewestone.

Seven leagues to the weſtwards of the Steart lyeth the ſound of Pleymouth, at the outermoſt eaſt poynt of the ſound lyeth a high round rock, called Mewſtoone, the weſt poynt is called Ramehead, betwixt them both goeth in the ſound Pleymouth northnortheaſt in, it is broad and deepe. A little to the northwards of Ramehead is a faire ſand bay, where men may anchor cloſe under the land, in nine and ten fathom. Two leagues ſouth a little eaſterly from Ramehead, lyeth a Rock above water, called Eddyſtone. The poynt of Pleymouth lyeth from the Eddyſtone north and by eaſt, and northnortheaſt, diſtant about foure leagues. In the ſound, by the land of Pleymouth, lyeth a little Iſland, which is faſt to the weſt ſide with a riffe or rane of Rocks under water, ſo that men muſt ſayle alongſt to the eaſtwards of it, whether they be bound into Catwater, or into Hamoaſe the weſt harbour. If you will goe into Catwater, then runne in betwixt the Iſland, and the poynt on the eaſt ſide in with the land of Pleymouth, untill that you ſee Catwater open on the ſtarboard ſide of you, goe then into the eaſtwards betwixt.

Eddeſtone.

Catwater.

twixt the point of Pleymouth, and the foreſayd eaſt point on the ſtarboarde ſide of you, leaving the moſt part of the channell on the ſtarboard ſide of you, untill you come within the poynt, and anchor there right againſt that high ſteepe norther-land, there is at low water with an ordinary tyde foure and five fathom deepe.

When you ſayle into Catwater, you muſt take heed, and give a good birth to the ſouther poynt of the entry of Catwater, for there lye off to the foreſayd point, a ledge of rocks under water, neare about two cables lenghts from the Land, and upon the poynt of the ledge or ſhoale, lyeth a buye, where is at halfe flood about twelve foot water, which buye you muſt leave on your ſtarboard ſide in going into Catwater, and when you have Catwater altogether open, you may run into the eaſtwards, leaving (in the entry of the harbour) two third parts of the channell on the ſtarboard ſide, as before is ſayd, becauſe the ſouth ſhoare is ſomewhat flat off, there lying a ſandy bancke, which reacheth to the ſecond point of the ſouth ſhoare of Catwater.

A little to the eaſtwards of that foreſayd little Iſland, lyeth a rocke under water, upon which is at low water not deeper then two fathom. For to ſaile within the Iſland, you may goe into the eaſtwards, or to the weſtwards of the rock according as occaſion ſhall ſerve. If you wil ſayle into Hamoaſe, to the weſtwards of the rock, then take the ſounding of the Iſland in foure or five fathom at low water, and run in ſo by it, untill that the Fiſher Village (lying to the northwards a little within the land) come in the weſt ſide of the valley on the north ſhoare, then are you to run through betweene the Iſland and the rocke, and to the weſtwards of te rock. Within the Iſland upon the land of Pleymouth, ſtandeth a wall or hedge, when as you ſee that onendling, and the chappell of the foreſayd Fiſher Village commeth to the northſide of the Valley, and Catwater commeth open; then doe you runne over the Rocke. Betweene the Iſland and the maine, men may anchor in twelve and thirteene fathom.

Hamoaſe. If you bee bound into Hamoaſe, you muſt runne in betweene the Iſland and the land of Pleymouth, and then in a middeſt the channell betweene the two Lands, untill that the entry of Hamoaſe be open, runne then into the northwards, at the channel leadeth, untill you come in about the weſt point, and anchor there in ſixteen, fifteen, and twelve, or teen fathom. In the narrow it is fifteene, ſixteene, ſeventeene, & alſo twenty fathom deepe, and betweene the Iſland and the maine, eight, nine, tenne and twelve fathom.

About halfe a cables length to the eaſtwards of the paſſage way going into Hamoaſe, lyeth a ſuncken rock under water, called the German, about two great ſhippes lenghts from the ſhoare, and at low water hath not above foure foot water upon it. And when men doe come any thing neare this foreſayd ſuncken rock going into Hamoaſe, either with the flood or the ebbe; the tyde wil ſet them right upon it, if it bee calme. Therefore to avoyd it, men muſt (with calme weather) give this foreſayd ſuncken rock a good birth, untill they bring the houſes of the Fiſher-Village, (called the Stone-houſe) open of the eaſter-point of the Paſſage way, and then runne in over towards the north ſhoare, untill they have hidden the Iſland in the foreſayd eaſterne point of the piſſage way, for to avoyd a ſuncken Rock that lyeth of to the eaſtwards from the north point of the Beach on the weſt-ſide of the Paſſage way, a halfe cables lentgh off, then runne amidſt the channel into Hamoaſe. Upon this foreſayd ſuncken Rock at low water, is not above 3 or 4 foot water.

The German a ſuncken rock

Suncken rocks.

In the ſound of Pleymouth, not farre to the northwards of the Mewſtone, lye two or three ſuncken rockes, upon which remaine at low water not more then three or foure fathom water, the markes of them are theſe: to the eaſtwards of Pleymouth ſtandeth a Tower with a Mill, and to the weſtwards of the foreſayd little Iſland ſtandeth a Gentlemans houſe, when the little tower or turret of that houſe commeth over the point on the weſt ſide of the Iſland, & the foreſayd Tower and Mill to the eaſtwards of Pleymouth come one over the other, then are you upon the innermoſt ſuncken rocke or ſhoale, which is at low water foure fathom deepe. But when the poynt of Hamoaſe commeth even without the point to the weſtwards of the Iſland, and the foreſayd Tower and mill alſo one in the other, then are you upon the outermoſt rocke, where it is at low water and ſpring-tyde three fathom and a half deepe.

Suncken Rocks.

From Ramehead weſt & by ſouth five leagues, lyeth Foy, and betwixt them on the coaſt lyeth a little Iſland, a little to the eaſtwards of a poynt, called Talland-point, thwart of Weſt-louwe, called Louw-Iſland, you may anchor there to the eaſterwards of the Iſland in 5 or 6 fathom. Louw-Iſland.

Foy is a broad haven, where a ſhip may go in at a half flood, at the eaſtſide of the haven ſtandeth a little church with a little ſteeple, & on the weſtſide a white church, ſomewhat greather then that upon the eaſt-land with a ſquare ſteeple at the weſt-end of it. Foy.

For to ſayle into Foy, you muſt have at leaſt a halfe flood, and runne in midſt the channel betwixt the two poynts, and being come within, then chuſe which ſide you will, but the moſt water is by the weſtland, betweene the ſtakes and the Tower that ſtandeth upon the weſtland. Being come within the Stakes (as you come in by the weſtland) then beare ſomewhat of preſently from the weſt-ſhoare, almoſt into the middle of the channell, neareſt to the weſt ſhoare, untill you come before the Village that lyeth on the weſtſide, there is a deepe docke, where a ſhippe that draweth ſixteene foot water may lye a float at low water. In the ſayd dock may 3 or 4 ſhippes lye.

If (when you come in by the eaſt-land) you deſire to bee in the foreſayd docke or poole, then ſayle in untill you come within the ſtakes, and then edge over off from the eaſt-land untill you come neareſt the weſtland, for to avoyd a Flat, which lyeth by the eaſt ſhoare alongſt the haven, and beginneth againſt the firſt houſe of the Weſt-Village. If it ſhould happen, that you could not lead it in with a ſayle, then let your anchor fall without the ſtakes, & warp in with hawſes, untill you come into the foreſayd poole.

You may alſo ſayle ſo farre in, that you may ſee a wall on the weſt-ſide of the haven, where lyeth a village behinde it. A ſhippes length to the ſouthwards of that wall, it is good lying by the eaſt-land, being moored by foure cables, there may alſo a ſhip ride a float that draweth ſixteene foot water. You may alſo ſayle further in alongſt by that Swach that lieth on the weſtſide, wherein the mill ſtandeth, but come not to neare the north point of thee Swach, for there by it, lyeth a rock under water, being paſt that you may moore your ſhip in the middeſt of the channell, there is beſt lying for ſhippes that draw much water.

Foure leagues ſouthweſt and by weſt from Foy, lyeth the point of Dodman, & two leagues to the weſtwards of it lyeth the haven of Falmouth. The point of Dodman is double Land with a round hill, which to the weſtwards goeth ſloping downe, ſomewhat towards the weſt end ſtandeth a mill with a ſharp tower, and ſome little houſes upon the land, ſomewhat to the weſtwards, men may ſee the caſtle of Falmouth upon a round Hommocke againſt the high land. This land is very eaſy to bee known when you come from the weſt, or from the Lizard. Dodman.

Upon the weſt poynt of the haven of Falmouth ſtandeth a Caſtle upon the high land, and in the entry neareſt the weſt-ſide, lyeth a great rock above water, you may ſayle about it on both ſides, at the inner ſide of the eaſt poynt lye alſo ſome rocks off from the ſhoare. For to ſayle in there to the eaſtwards, alongſt by the foreſayd Rocke, you muſt runne in within two cables lengths, alongſt by the eaſtland leaving the foreſayd rocks on the ſtarboard ſide, and the great rocke on the larboard ſide, & ſoo ſayle right in with the high land that lyeth on the weſt

weſt ſide within the haven. Within in the haven ſtandeth on the Land a white Chalkye ſpot, alſo a little wood of trees, keepe them over the north poynt of the foreſayd high weſt-land, and ſayle ſo right in with them, keeping them ſo untill you come neare them, you ſhall finde ſo at halfe flood, upon the ſhoaleſt, not leſſe water then five fathom, and that betwixt the foreſayd Caſtle upon the weſt poynt, and the eaſter Caſtle that ſtandeth on the eaſt ſide, within the haven, over againſt it, or a little within the Caſtles. When you ſhall then come by that foreſayd high weſt-land, runne alongſt by it, unto the north-end of the ſame, and anchor there in twelve, thirteene, or fourteene fathom. You may alſo from thence edge over towards the eaſt-land, & anchor there under or behinde the banck; that lyeth of from the eaſterne Caſtle alongſt the middle of the haven, in ſixe, ſeven or eight fathom: the banck falleth almoſt dry at low water, and is ſoft ground, ſoo that the ſhippes ſit in the oaſe, when they come there a ground.

For to ſayle into the weſtwards of the foreſayd great rock, you muſt take the ſounding of the weſt-land, where the Caſtle ſtandeth upon, in five or ſixe fathom, being ſomewhat within the rock, runne (as before is ſayd) towards the weſt-land. To the weſtwards of the rock, it is in that channell ſix and ſeven fathom deepe at halfe flood, but in the channell to the eaſtwards of the rock, ſeven and eight fathom.

Foure leagues ſouth & by weſt from Falmouth lyeth the eaſt poynt of the Lizard, betwixt them both lyeth a haven, called Helford, which is little uſed for ſhips.

At the ſouth ſide of the haven lyeth a ſteepe poynt, and on the north-ſide a low ſharpe poynt. Within the haven on the ſouth-ſide, ſtandeth a Gentlemans houſe beneath at the ſtrand, & upon the hill ſtandeth a tuſſe of trees, you muſt keepe theſe one in the other, and runne ſo amiddeſt the channell into the entry of the haven. On the north ſide ſtand alſo 2 or 3 trees, theſe come a maſts length to the weſtwards of a little houſe that ſtandeth in a white ſandy bay, there upon you may ſayle in alſoo amidſt the channell; it is a ſhort in-let, being come within, you may anchor in ſix or ſeven fathom. Upon the ſouth ſide ſtandeth alſo a ſharpe Tower, and upon the north ſide a little Caſtle upon the ſteepe land.

The Lizard hath three poynts, the northermoſt is called the Blacke-head, from that to the ſecond the coaſt lyeth ſouthweſt and by weſt, and alongſt to the third about weſt ſouthweſt, or weſt and by ſouth: from the ſecond or middelmoſt poynt, lye to ſeawards ſome rocks a cables length, or a cables length and a halfe off, called the Stagges.

To the northwards of the northermoſt, or eaſtermoſt poynt of the Lizard, betwixt Helford and the foreſayd poynt lye ſome rockes a great league off from the land, called the Mannackles, ſouth and by eaſt from the harbour of Falmouth, & eaſtnortheaſt from the foreſayd Blackehead, where of many of them are above water at low water, and ſome of them at high water remaine uncovered. Betwixt them and the ſhoare it is very fowle and rocky, ſo that men cannot run through betwixt them without great danger.

He that commeth out of Falmouth, and is bound to the weſtwards, muſt not goe more ſoutherly with an ebbe then ſouthſoutheaſt, or ſoutheaſt and by ſouth according as the winde ſhall bee, for to run cleare of theſe foreſayd.

Of the Tydes and Courſes, of the ſtreames.

In Dartmouth and Torbay a weſt and by ſouth moon maketh full ſea.

Thwart of the Steart in the channell, a weſtnorthweſt & eaſtſoutheaſt moone.

From the Steart to Portland in the middeſt of the channell, the flood falleth eaſtnortheaſt, and the ebbe weſtſouthweſt.

Thwart of Dartmouth by the land, the floot falleth n. e. & by north, & the ebbe ſouthweſt & by ſouth.

Thwart of Torbay towards Exmouth in the baye, the flood falleth northnortheaſt, & the ebbe ſouthſouthweſt.

In Plymmouth and Foy a weſt and by ſouth, and eaſt and by north moon maketh the higheſt water.

Thwart of Foy in the channell an eaſtſoutheaſt moone.

A ſea-board of Falmouth an eaſt and by ſouth, but in the haven of Falmouth an eaſt and by north moone.

At Helford & at the Lizard, by the land, an eaſtſouth-eaſt and weſtnorthweſt moone maketh the higheſt water.

From Ramehead to the Steart by the land, within the Eddy-ſtone, the flood falleth eaſtſoutheaſt, and the ebbe weſtnorthweſt.

From the Dodman to Ramehead, the flood falleth eaſtnortheaſt, and the ebbe weſtſouthweſt.

From the Lizard to the Dodman northeaſt and ſouthweſt.

In the channell betwixt the Lizard and the Steart; thwart off Foy, the flood falleth eaſtand by north, and the ebbe weſt and by ſouth.

Of the Depths.

The Steart and the land of Dartmouth men may ſee them both in five and forty fathom.

When you have the high land of Pleymouth north from you, you may ſee it in fifty fathom, it is high double land, and ſheweth it ſelfe firſt in two hilles. That ſame high double land within the land, you may ſee it from thwart of Foy untill you come thwart of Dartmouth.

The Dodman you may ſee in 42 fathom of from the Lizard to the Steart.

The Lizard you may ſee in five and fifty fathom, there the ground is white and red ſhelly ſand.

Courſes & Diſtances.

From Portland to S. Paul de Lion ſouthweſt and by ſouth	40 leagues.
From Portland to Uſhant ſouthweſt	53 leagues.
From Portland to Exmouth weſtnorthweſt	13 leagues.
From Torbay to Darthmouth ſ. w.	3 a 4 leagues.
From Dathmouth to the Steart ſ. w.	3 leagues.
From Portland to Torbay weſt, ſomewhat ſoutherly	13 or 14 leagues.
From Portland to Dartmouth weſt & by ſ.	16 leagues.
From Porthland to the Steart weſtſouthweſt weſterly	19 leagues.
From the Steart to the Caskets eaſtſoutheaſt	21 leagues.
From the Steart to the Sept Iſles, ſouth & by eaſt ſomewhat eaſterly	24 leagues.
From the Steart to S. de Lion ſouth and by weſt, ſomewhat ſoutherly	27 leagues.
From the Steart to Uſhant ſouthweſt and by ſouth	38 leagues.
From the Steart to Ramehead, the courſe is weſtnorthweſt	8 leagues.
From Ramehead to the Iſland of Lowe weſtſouthweſt	3 leagues.
From the Iſle of Low to Foy, weſt	2 leagues.
From Foy to the Dodman ſouthweſt & ſouth w. and by w.	5 leagues.
From the Dodman to Falmouth weſt and by ſouth, and weſtſouthweſt	4 leagues.
From Falmouth to the Lizard ſouth & by w.	4 leagues.
From the Steart to the Eddy-ſtone weſt or a little more northerly	7 or 8 leagues.
From the Eddyſtone to Ramehead north a little weſterly	2 leagues.
From Ramehead to the Dodman w. ſ. w.	8 leagues.
From the Dodman to the Lizard ſouthweſt	6 leagues.
From the Steart to the Lizard weſt and by ſouth	20 or 21 leagues.

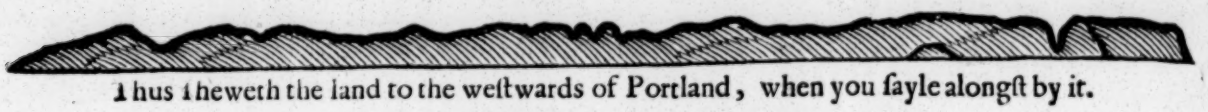
From

From the Lizard to Garnſey eaſt and by ſouth 37 leagues.
From the Lizard to the Sept Iſles, or ſeven Iſlands, the courſe is ſoutheaſt and by eaſt 31 leagues.
From the Lizard to Uſhant ſouth 29 leagues.
From the Lizard to Cape de Finiſterre ſouthweſt 153 leagues.
And that courſe goeth about 5 leagues without the Cape.
From the Lizard to Teneriffe ſouthſouthweſt 466 leagues.
From the Lizard to Tercera ſouthweſt and by weſt 386 leagues.

Heights.

The Steart lyeth in 50 degr. 12 min.
or as ſome will hold, more northerly.
Torbay lyeth in 50 degr. 28 min.
The Lizard lyeth in 50 degrees.

How theſe Lands doe ſhew themſelves at Sea.



Thus ſheweth the land to the weſtwards of Portland, when you ſayle alongſt by it.



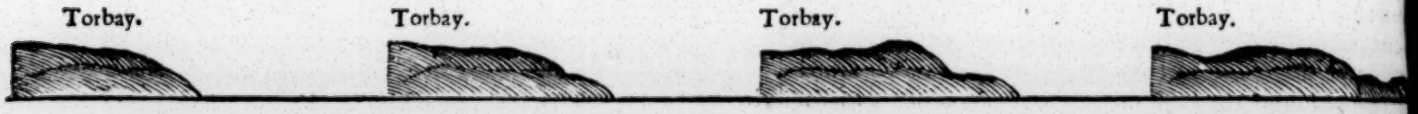
The land betwixt Torbay and the Steart ſheweth thus.



Thus ſheweth the land betwixt Torbay and the Steart, when the Steart is ſouthweſt and by weſt from you.



Thus ſheweth the land betwixt Torbay and the Steart is ſouthweſt and by weſt from you.



The poynt of Torbay ſheweth thus in divers forms, according as you are ſoutherly or norther of from it.



Theſe two figures belong one to the other at the two croſſes.



Thus ſheweth Dartmouth, at it is pourtrayed in theſe two figures, when you are right thwart from it, a league or two from the land, with the land on both ſides of it, as well towards the Steart as towards Torbay, and to the northwards of it.



Thus ſheweth the Steart, being north from you 2 or 3 leagues.



The Steart being north from you 7 leagues, ſheweth thus.



When the Steart is northeaſt from you, it appeareth in this forme, and then the poynt goeth flat downe.



Thus ſheweth the land to the weſtwards of the eaſtermoſt poynt of the Streat, towards Salckom, when you ſayle alongſt by it.

YERLANT

Grenoort

Horsty

Vanck kar

Tuskar

Sables

Kimmer

Maseus

De Bisschop met zyn Klercke

Pointe S. David

I. Ramsey

Brede kay

Dale

Scalmes

Gresholm

I. Stocholme

Scakma Kamey

I. Smals

Milford haven

S. Govyens point

40

45

45

Beeds haven

Stinger point

Passon

45

S. Tees kay

I. Bressan

C. Cornwal

Whiland kay

S. Burien

Tees

Seven steen

Sorlinges

Lizard

Montsbay

Hulsoort

de Wolf

Lamorna point

Predannock point

I. Lundy

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng.en Fra. mylen 20 in een graet

BASSEN GESANT

Carmarten

Aberavon

Wormshooft

Cardief

De Nes

Newport

Engelse gronden

Bristou

Stephelm

Yphilharen

Hundsril

Mynhead

Dunster

Combemarten

Ilfar Combe

Bediford haven

Barneftable

Bediford

Porlock bay

Porlock

CORNWALL

Sorlinges



Thus ſheweth the land of the Steart, and alongſt to the weſtwards of Plyemouth, when the Steart is northnortheaſt about two leagues, and the ſound of Pleymouth northnorthweſt five or ſix leagues from you.



The Land betwixt the Steart and the ſound of Pleymouth ſheweth it ſelfe in ſhis forme, when you ſayle alongſt by it.



Thus ſheweth the high Land to the eaſtwards of Pleymouth.



Thus ſheweth the Land of Ramehead, and to the northwards of it, when you ſayle into the ſound of Pleymouth.



When you are thwart of the Dodman 4 leagues without the Land, that, and the land to the eaſtwards of it, unto Ramehead, ſheweth it ſelfe in this manner.



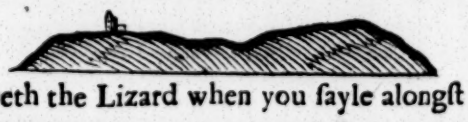
Thus ſheweth the Land to the eaſtwards of Falmouth, when you ſayle alongſt by it a league a ſeaboard the Land.



Thus ſheweth the land betweene the Dodman and the Lizard.



The Land betwixt Falmouth and the Lizard ſheweth thus when you are before Falmouth.



Thus ſheweth the Lizard when you ſayle alongſt by it.

The fifth Demonſtration.

Where in

Are delineated the Coaſts of England, from the Lizard, and the Landsend, to the C. of Cornwall, the Sorlings and the channell of Briſtow.

THE Lizard is a low point, where ſome rocks lye off from it, upon the ſouth end ſtandeth a Tower, and upon the high land towards the n. end ſtandeth another tower which is ſharpe.

About five leagues northweſt from the Lizard, lyeth a great Baye, called Mounts-Bay, at the weſt point of that bay lyeth a little Iſland, whereupon ſtand 2 little ſhort towers like beacons, on the eaſt ſide in the bay lyeth another high little Iſland, whereupon ſtandeth a Caſtle, called S. Michaels Mount on the eaſt ſide of this Baye, lyeth a great ranne of rocks, which lye off into ſea a league from the land, where of men muſt take good heed in dark weather, from thence to the ſouthward towards the Lizard the coaſt is all a alongſt full of rocks, but theſe lye not ſo farre off from the ſhoare.

For to ſayle into Mounts-Bay, comming from the Lands end, or from the Lizard, & being to the weſtwards of the foreſayd rane of rocks, you muſt runne in right with the little Iſland called Saint Michaels Mount, ſo long untill you come within a half league of it, then edge up to the weſtwards towards the Bay, untill that you ſee that foreſayd little Iſland, with the 2 little ſhort towers at the

Lands end of England.

weſt poynt, leave it on the larboard ſide, & runne in cloſe alongſt to the northwards of it, for it is very cleane, but leave the caſtle a great wayes on the ſtarboard ſide, being fowle about it. Being come within the little Iſland at the weſt poynt, you ſhall ſee within it a great ſandy baye, anchor there in ſeven or eight fathom. Eaſtſoutheaſt and ſoutheaſt winds doe blow there right open in, for all other winds you lye there landlockt.

Foure leagues to the weſtwards of Mounts baye lyeth the Lands-end of England, and lyeth from the Lizard w. n. w. diſtant nine or ten leagues. About a league ſ. e. from the Lands end and halfe a league without the land, lyeth a ſuncken rock, which at low water commeth above water. Thwart off that rock ſtandeth a Church upon the land, when you can but even ſee that over the high land, then are you thwart of the foreſayd rock, to wit, even as farre from the land as the rock, but when the Church is hidden behinde the high Land, that you cannot ſee it, then are you nearer to the Land then the rock, or within the rock towards the Land, and ſo you ſhall goe through betwixt it and the Land.

Upon the Lands-end of England lye two round hills, when you get ſight of them you ſhall ſee upon the higheſt a ſpire tower, comming ſomewhat nearer, you ſhall ſee upon the outtermoſt end, in the low land, another ſpire Tower, there by is the Lands-end reaſonable well to bee knowne. The ground is thereabouts whitiſh ſand, with red ſand, and mingled with ſhels.

From the Lands-end unto the C. of Cornewall, or to the little Iſland Breſam, lyeth the coaſt moſt north about 5 leagues.

Rocks on the Lands-end.

At the Lands-end lye ſome rocks; you may runne in within them as well to the northwards as to ſouthwards, & come to anchor in 8 or 9 fathom: to come in there from the ſouthwards it is narroweſt, & tenne fathom deepe: from the northwards it is beſt and broadeſt, and eight and nine fathom deepe; but on the left ſide cloſe to the north point of the Lands-end lyeth a ſuncken rocke, which you muſt avoyd when you ſayle in there.

Silly.

Silly lyeth from the Lands-end weſtſouthweſt diſtant eight leagues, but from the Lizard weſt, ſixteen or ſeventeen leagues.

Seven-ſtones.

Betweene the Lands-end and Silly lye de Seven-ſtones weſt and weſt and by ſouth foure leagues from the Lands-end, and north eaſt, and by eaſt and e. n e. allmoſt 3 leagues from Silly, that is, a rane of rocks which come not above water, but alwayes breaketh upon them.

The Gulfe.

Southſouthweſt and ſouthweſt and by ſouth 3 leagues from the Lands-end, and 5 leagues eaſt from Silly, lyeth alſo a ſharpe rock, called the Gulfe, which commeth at halfe tyde above water, and is round about indifferent cleane.

For to ſayl into Silly.

Silly is divided into divers Iſlands, alongſt the weſt ſide lyeth a great multitudine of rocks, men may goe in there through divers channels or ſounds, but the ſouther channell is the beſt. About the middeſt of the entry of that ſound or channell, lyeth a ſuncken rock, men may goe in on both ſides of it, but to the eaſtwards of it, it is broadeſt and beſt. For to ſayle in there comming from the eaſt, you muſt runne alongſt by the eaſt land in eight or nine fathom, and you ſhall ſo runne alongſt to the eaſtwards of that foreſayd ſuncken rock, which lyeth againſt a ſconce a little without the caſtle. The markes to avoyd this Rock, are two rocks which lye on the weſt ſide within the haven, the one (to wit the innermoſt) is ſomewhat greate, then the other. If you bring them one in the other, or the northermoſt a little to the eaſtwards of the ſouthermoſt or the ſmalleſt ſo that you may even ſee through between them, and ſayl ſoo right in, keeping them ſoo, you ſhall ſo ſayle farre enough to the eaſtwards of the Rock. If you come from the ſouthwards or the weſtwards, and are bound into Silly, then runne towards the eaſt-land ſo long untill you bring the two foreſayd rocks within the haven, one in the other, or even through ont another, ſayle then ſoo in, and then you ſhall runne (as before is ſayd) cleare of the foreſayd ſuncken rock, thwart of the ſconce. At the inner poynt of the Iſland, at the eaſt ſide of this ſoutherne channell, lyeth another ſuncken rock, whereof men muſt take heed. For to avoyd it, you muſt run ſo long to the northwards, upon the markes of the foreſayd two rockes, untill you may ſee the little Tower in the ſandy Bay, then goe to the eaſtwards, unto the Bay, & anchor there in eight or nine fathom. When you come neare Silly upon the ſouth ſide, you ſhall ſee a ſquare Tower in the ſandy bay or valley, and to the weſtwards many little Iſlands and rocks. The ground of Silly is ſomewhat ſtony with ſome red ſhels.

Of the Depths and many ſorts of grounds before and in the channel betweene Silly & Uſhant, and thereabouts.

Southweſt and by ſouth from the Seames ſeven leagues it is deep 72 fathom, the ground pale, white courſe ſand, like ſmall fretted little ſtones, with little peces of queenes ſhels with gray flat little ſtones, and white gliſtering needles, ſayle from thence north and north and by eaſt, and then you ſhall well to paſſe with Uſhant.

About two leagues ſouthweſt from the Seams it is deep 52 fathom, the ground there is white, yellouw, rough, and ſomewhat longiſh ſand, with a little red ſmall ſhelly ſand, with many gray crompeld things, and ſome ſmall with gliſtering poynts of needles. If men did finde there 70 or 80 fathom, they would judge it to be good channel ground.

Weſt ſouthweſt from the Seames, ſoo farre from the land, as men may but even ſee the Sheets from the poop, with clare ſight, it is 54 fathom deep; the ground is red, yellow, white and black peeces, like parings of cheeſe, and a little courſe red ſand mingled with all.

Weſt and by ſouth eight or nine leagues from the Seames is 65 fathom, the ground is white yellow, with a little red ſmall ſhelly ſanſt, with ſome peeces of ſhels & queens, not very great, with much white and yellow ſome thing long ſand, and ſmall white things like points of needles, like as men find in the channell.

Seven leagues ſouthweſt from Uſhant, or thereabouts, that men may even ſee it from the poop, having cleare ſight in 70 fathom, there the ground is white and yellow courſe ſand, with ſome peeces of queenes ſhells, and ſome peeces of white thin ſhels, with ſome gray flat ragged ſtones.

Southweſt and by weſt from Uſhant, about 19 or 20 leagues in 78 or 80 fathom, the ground is white and yellow courſe ſand, with ſmall gliſtering needles, with white peeces of queens ſhels, and gray and yellow flat ſtones, and little peeces, like as it were of Oyſter ſhels.

Weſt and by ſouth from Uſhant 21 leagues, in 68 fathom, the ground is red, yellow, and black, mingled with a little white round ſmal ſand, like ſhelly ſand. But in 80 fathom, 21 leagues weſt and by ſouth off from Uſhant, the ground is yellow and ſhelly, with ſome gray and crompeld little needles, like ends of ſmal rye.

In eighty fathom 24 leagues from Uſhant weſt & by ſouth, men finde rough great ſand, with many ſorts of ſhels, red, white, yellow, and gray, with peeces of queene ſhels.

From Uſhant weſt 16 or 17 leagues, in 75 fathom, the ground is white and yellow courſe ſand, with peeces of thin white ſhels, and gray peeces of queenes ſhels like as it were of Oyſter ſhels, white ſmal white gliſtering things like needles.

Eight or nine leagues from Uſhant it is deepe 70 fathom, the ground red, white, yellow, and gray ſhelly ſand, with red, yellow, & black peeces of ſhels, and ſmal red, yellow, black, and gray ſtones, with ſome ſmal white things like needles.

Eight and forty leagues weſt and by north from Uſhant, and 50 fathom weſtſouthweſt from the Lizard, or thereabouts, it is deepe 95 fathom, the ground red, yellow, and black ſand, with ſmall white round ſhelly ſand

sand, and some little peeces of shels, and queen shels, with some peeces of thind shels.

Three and thirty leagues west and by north from Ushant and 27 leagues southwest and by south Silly, in 95 fathom, the ground is gray, red and yellow, mingled with smal black sands, with darke, red, white, and yellow peces of shels, to wit, gray and red shelly sand. An east-northeast course from this ground off, is the best, it is in the height of about 49 degrees.

Foure and twenty leagues west, or west and by north from Ushand, and s. and by west from Silly 21 leagues in 80 fathom, there the ground is white, gray, red and yellow fine small shelly sand, with little red and white peeces of little shels, like bruised mustard seed in the heyght of 49 degrees.

Seven or 8 leagues west and west and by north from Ushant in 68 or 70 fathom, there the ground is white and yellouw, smal shelly sand, mingled with many gray crompled little things, like needles.

About 30 leagues somewhat more northerley from Ushant, in 90 fathom, the ground is smal white rough, & somewhat long sand, mingled with a little red and yellow, & some glistering little things like needles, with two or three peeces of white gray shels. If you goe on from thence northeast and by north, until you come in 55 fathom, there the ground is yellowish, white course shelly sand, with white peeces of shels; then you may see Silly lye nine or tenne leagues north or somewhat more westerly from you.

Westnorthwest from Ushant 21 leagues, and southwest and by south from the Lizard 27 leagues, in 80 fathom, the ground is gray and red shelly sand, there commeth also on the lead a little peece or two of white or gray queene shels, with yellow and red peeces of shels, alsoo peces of perriwinckles.

Nine leagues northwest and by north from Ushand, the ground is white and yellow rough shelly sand, with gray crompled glistering little things like needles, there come alsoo on the lead little things like smal straws. If you goe on northeast from thence, you shal fall with the Steart.

Twenty leagues northwest & by north from Ushant, and 16 leagues southwest somewhat southerly from the Lizard in 68 fathom, the ground is white yellow and red small round sand, with some white glistering little things like needles, with one or two little gray crompled things like needles, and two or 3 little peeces of little white shels.

Nineteen leagues n.n. w. from Ushant, & 12 or 13 leagues s.s.w. from the Lizard, it is 68 fathom deepe, the ground is there all manner of ragged stones, gray, red & black with red peeces of shels, & some gray crompled little things like needles.

Nineteene leagues north and by w. from Ushant, the south from the Lizard, it is deepe sixty two fathom, the ground is white & course shelly sand, with white & gray crompled little things like needles, with white peeces of shels, and 2 or 3 little stones amongst it.

Twelve or thirteene leagues west from Silly, or somewhat more northerly, it is deep 80 fathom, the ground is gray and oasie, mingled with smal black sand. In some places of the same depth it is white gray oasie smal sand, with peeces of thin white shels amongst it, with a little peece or two like parings of cheese: this ground cannot be gotten up with candle tallow, or other hard tallow upon the lead, but with soft tallow, or butter. In these depths you have no where such oasie ground as there, whereby men may well know that they are on the back side of Silly or Engeland, to wit, west from Silly.

West from Silly 6. leagues, it is oasie gray sand with 2 or 3 little peces like parings of cheese.

Seven or 8 leagues s.s.w. from the Lizard in 16 fathom, the ground is white grosse with a little red sand, with little shels, and little glistering white things like needles. Nine or ten leagues south and by west from the Lizard, in 60 fathom, the ground is yellow pieces of shels, and gray peeces of soft flat stones like parings of cheese, with some red pieces of schels, without any sand there in.

South west and by west from the Lizard and south-southwest from Silly 19 leagues, it is deep 78 fathom, the ground gray, yellow, and red shelly sand, with red, yellow, and blue pieces of shels, with queene shels, and a piece or two like parings of cheese, or like pieces of Oyster shels, with alsoo two or three glistering little tings like needles, in the height off about 49 degrees, and 30 minutes. Lizard. Silly.

Fifteen or sixteen leagues southwest and by south from the Steart, in 57 or 58 fathom, the ground is full of pieces of all maner of shels, and queen shels, with a little yellow and white shelly sand, with many sorths of little stones, and gray little pieces like parings of cheese, with some crumplet, and some not crumpled, but little glistering things like needles, and little things like maggots that are in Bacon. Steart.

South southwest from the Steart, sixteen leagues, in 53 fathom, the ground is white reddish shelly sand, with pieces of queene shels, with red gray little stones. Steart.

South west from the Steart 8 leagues, it is deep 40 fathom the ground gray and red shelly sand.

South southwest from the Steart, 13 or 14 leagues, it is deep 47 fathom, the ground pale muddy sand, with little long tings, and little stones.

A great kenning south southeast from the Steart, it is deep 40 fathom, the ground red sandy clay with pits in the tallow.

Southwest eleven or thirteen leagues from the Steart, in fifty fathom, the ground is white and yellow smal shelly sand, with some pieces off white shels, with gray and crumpeld, and also glistering little things like needles. In fine, he that soundeth much, getteth many & divers sorts of grounds and sometimes great change in little distance of place. But he that soundeth & findeth white shels, with little things like strawes and needles, it is certaine that he is nearest to Ushand; but if he finde brandy ground, or blacke little stones mingled with white little things, then is he nearest to Silly. Steart.

Hee that soundeth thwart of Ushant, and findeth small white sand, and little shels, and small little things oasie and white. Ushant shal then lye north east from him. If he finde long small little things like needles, then shall Ushant lye southeast from him. But if he be not sure of these grounds, then he shall beare to the northwards. And if he finde deeper water then he is towards the Seams, but if he finde it shoaly, then he is in the entring of the Channell to the northwards of Ushant. If he be between Ushand and the Seams in 70 fathom, he shal finde the ground to be small little stones like black sand of the earth: or else if he finde the ground to be great red sand, then he must stand to the northwards, untill that he finde the white sandy ground, and long smal things then he may hold himself certaine to be in the entring of the channell. Marks of Ushant & Silly.

From the Lands-end off Engeland to the C. of Cornwall the coast lieth north about 5 leagues, but Silly and the foresayd Cape lie southwest and northeast distant about 9 leagues. By the Cape lieth a little Island or Rock, called Bresam, betwixt it and the Cape men may sayle thorough.

From the Cape of Cornwall unto the little Towne S. Yves, lieth the coast about east and by nord, and east northeast five or sixe leagues. Saint Yves lieth upon the west poynt off a great bay, which is about two leagues broad. At the east poynt off the Bay lieth a little Island, there lieth off from it a great ledge off rocks, a great halfe league thwart of into sea, where off many off them come at halfe ebbe above water, therefore he that commeth off from the Cape off Cornwall, end will sayle alongst the coast towards Stoupert or Padstow, must keepe off (thwart of this ledge) at least a great league from the shoare, because off the foresayd rocks. Betwixt that foresayd little island at the east point off the Bay & the maine land, it is also at many places rocky and foule, soo that one that is not there very well acquainted, may not sayle trough I. Bresam. S. Yves.

there without great danger. In the Bay of Saint Yves is on both sides good sandy ground, where men may anchor all over, and come soo neare the shoares as they will. At the west side of the Bay at the Towne, is a head where small shippes and Barkes doe goe in within it, and lye there succoured for northerly windes, but great ships may not doe soo, they must anchor without in sixe or seven fathom.

From Saint Yves to Hartland poynt, the course is northeast seventeen or 18 leagues, betwixt them both about halfe way lyeth the poynt of Stoupert, to the eastwards of it lyeth Padstow in a Bay, where is a very good road in seven or eight fathom. At the west side of that poynt lyeth a suncken Rock under water, and upon the poynt a great high rock, to the westwards of that poynt towards Saint Yves, are many white sandy and chalky bayes a'ongst the shoare, whereby the coast there is very easy to beknowne.

Stoupert
Padstow

Hartland poynt is a poynt that lyeth out, foure leagues north from it lyeth the Island Londey, which is somewhat a long Island, it lyeth most north and by west, and south and by east. At the east side of that Island men may ride for westerly windes in 14 and 15 fathom, but one the west side the ground is foule.

Hartlant Poynt.

Foure leagues to the eastwards of Hartland poynt eastsoutheast from the south end of Londey, lyeth the sound of Biddeford, being a broad haven, where many ships doe sayle in and out. A little within the mouth of the haven, it divideth it selfe into two rivers, upon the westermost on the starboard side lyet Biddeford, and upon the easternost on the larboard side lyeth a town called Barnestable.

Biddeford.

Barnestable.

From the poynt to the northwards of Biddeford Haven, unto Ilfercombe the course is e. n. e. foure leagues, that is a haven where remaineth at low water 3 or foure fathom deepe. Before the haven is also good roade, in 8 or 9 fathom at halfe flood.

Eleven or 12 leagues to the eastwards of Ilfercombe, lie two little Islands, about two leagues north & south one from the other, called the Holmes, the northermost is called the Flatholm, and the southermost the Steepholm, betwixt Ilfercomb & the Holms (somewhat nearer the Holms then Ilfercomb,) lyeth a little towne called Mynehead, where many ships do lade.

Ilfercombe.

Flatholm.
Steepholm.

In the fareway betwixt Ilfercomb & the Holmes, on the English side; on the one side, and the bankes on the welsh side on the orther side, in the middest of the channell it is deepe 30, 25, 20, 18, 16, and 15 fathom, the nearer the Holmes the shoaler water. When men come from the westwards within the Island Londey, then they may see the Land on both sides, to wit, of England and Wales. The English coast even from the C. of Cornwall to the Holmes is altogether cleane, but the coast of Wales is most all foule and shoaly, from the Island Caldy unto Bristow, with many bankes, sands, and riffes that lye off. The Holmes and the Island Londey lye west sourhwest, and east northeast, distant 19 leagues.

He that will sayle from Londey to Bristow, must run alongst by the English coast, untill that he come within the poynt of the Naes, for to avoyd Naes-sand, and then forth alongst through betweene the Holmes, leaving the Steepholme on starboard, and Flatholme on the larboard side. Men may also with little ships, of small draught, sayle about to the southwards of the Steepholme, but it is there so shoaly, that there remaineth at low water no more then two fathom water. Under Steepholm men may anchor where they will, in foure or five fathom.

Road under Steepholm.

He that commeth off from the Naes, and is bound to Bristow, must stand over to the Steepholme, and run alongst to the northwards of it. It lyeth from the Naes east southeast about seven leagues.

For to sayle trough between the Holms, the right & best fareway, you must sayle neareit the side of the Flatholme, there it is deepest, with an open wind men may sayle alongst soo neare by it without any hurt, that thay may cast with a stone upon it. Within or to the eastwards of the Holmes, lyeth shooting off from the east land, a great shoale, lying off with a great tayle towards the west which (comming from the west) men micht easily sayle within. For to avoyd it, you must set the Flatholme (when you are passed it) southwest from you, & keepe it standing soo, untill that you shall have sayled about a great league, looke out then for a little Island, that shall then at the east shoare lye neere about thwart from you, upon it stand two mils, and above upon the maine land standeth one mill. When the mill that standeth upon the high land commeth to the west end of that foresayd. Island, you shall bee past the foresayd tayle of the English grounds, and cannot sayle within it, goe then e. n. e. alongst by the English grounds, which are flat, so that you may sayle alongst by them upon your lead in 3 or 4 fathom soo neare as you will. When then the mill that standeth upon the high land, commeth betweene the foresayd two mills which stand upon the little Island, then shall you bee altogether past the English grounds, run then boldly towards the Pnglish coast, and so close alongst by it, as you please, towards Passis or Portthut poynt. From the Flatholm to Passis poynt in the right fareway, it is deep 14 and 15 fathom. The Welsh side you must shun, and take very good heed of it, because it is very uneven and full of steep bankes that are needle to, which at many places do fall dry at low water, you may not come nearer that coast then in 12 fathom, for (sayling towards it) you shall have at one cast ten fathom, and before you can heave the lead againe, you shal sit fast, alongst from Flatholm till you come to Bristow. About Passis point men do anchor in Kings road which is between the point & the river of Bristow, neareit the river there is good clay ground in 8 or 9 fathom. They that are bound into the river are brought in by the Pilots. Men may from thence also sayle in alongst by the coast of the Rivier of Severne, which is also like the River of Bristow, a faire River to sayle into.

For to sayle trough between the Holms.

For to sayle from Bristow to Londey, jou must goe away from Passis poynt w.s.w. untill that the Flatholm doe come to beare southwest from you, or els untill that the three foresayd mills upon the south land doe stand a like farre one from the other, to wit, that which standeth upon the high land, doe stand in the middest betweene the other two, sayle then right with the Flatholme, & very close alongst to the southwards of it, and being passed it, goe then forth westsouthwest unto the Island Londey.

About 3 leagues to the northwards of Flatholm lyeth the Town Cardief in Wales, being a tyde-haven, before it is a good road, as well for ships that are bound to the westwards as to the eastwards, where men may lye landlockt almost for all windes, to the eastwards and to the northwards of it lye many sands and bankes, which fall drye at low water, and so that they make men landlockt for northeast and by east winds. Hee that is bound into the roade before Cardief comming from the west, must runne in betwixt Flatholm and the poynt of Cardief, lying somewhat to the southwards of Cardief, and being come about the poynt, then to the northwards up alongst by the shoare unto the road.

Close up to the poynt of Cardief, to wit, to the westwards of it, lye two little Island, the one next to the poynt, is called Silye, and the westermost Barrey: Betwixt Silye and Flatholme lyeth a rock, southeast and southeast and by east from the point, which must bee avoyded when you will sayle trough there unto the roade of Cardief. When it is high water you may sayle over all that which at half ebbe commeth not above water.

About five leagues west from thee poynt of Cardief lyeth the Naes, to the westwards off it the land falleth away first about northwest, then afterwards southwest, or southwest and by west, and soo maketh a great bay betwixt the Naes and Wormes head, where there are very good roads for west, north, northeast, and east winds.

From the Naes a little From the shoare lyeth a great banke, called Naessand, which lyeth off from thence west-

and

and by ſouth, and weſtſouthweſt at leaſt five leagues into ſea. From Wormſhead likewiſe lyeth off a banck which Helwix. is very ſteep, called Helwix, about foure leagues ſouthſouthweſt, and ſouthweſt & by ſout into ſea, they that come from the eaſtwards, and will goe to ride in the Bay betwixt the Naes & Wormeſhead, runne alongſt cloſe by the poynt of the Naes, through betwixt the Naes & Naesſand, likewiſe they that come from the weſtwards, and are bound in there, may run through cloſe alongſt by the poynt of Wormſhead and the Helwix, it is betwixt them both about an Engliſh mile broad. He that commeth out of the ſea, may come in betweene the foreſayd ſands or bancks, it is there wide and broad.

Wormeſhead. Wormſhead is a poynt lying farre out, appearing a farre off allmoſt like the Oldhead in Ireland, but it is above or under, and goeth ſloping downe towards the north, it hath in many places chalky ſpots, whereby it is very eaſy to beeknown.

Caldy. About 4 leagues to the weſtwards of Wormeſhead lyeth the little Iſland Caldy, where upon ſtandeth a white Tower, ſhewing off at ſea like a white ſayle, which is ſet there for to know the land by.

Betwixt this Iſland and the poynt of Wormſhead, the land falleth a way with a great bay to the northwards, unto Carmarthen and Tinbuy, in this Bay it is all over good anchor ground for to ride. On every ſide of the Iſland Caldy men may alſoo anchor, and have ſhelter for all windes. A little to the northwards of Caldy lyeth a rane of Wullox. ſuncken rockes, called the Wullox. Hee that will ſayle about to the eaſtwardes of the Iſland, to Tinbuy, may runne cloſe about by it, up to the weſtwards, through betwixt the Iſland and the ſuncken rockes, leaving them on the ſtarboard ſide, or elſe hee may runne alongſt alſoo to the eaſtwardes and to the northwards of the ſuncken rockes leaving them on the larboard ſide, and ſo then alſo to Tinbuy, and anchor there before the Towne in five or ſixe fathom. To the eaſtwardes and to the northwardes of the foreſayd rockes, it is alſo good anchorage in ſixe, ſeven, or eight fathom, it is there all cleane ground, and farre of ſhoale water. Men may alſo ſayle through to the weſtwards of the Iſland Caldy, (which is between the Iſland and the poynt of the maine land) to Tinbuy, but it is there narrow, yet cleane, and deepe enough.

River of Carmarthen. The river of Carmarthen lyeth from the Iſland Caldy northeaſt and by north diſtant about foure leaguss, the channell for to ſayle in there, lyeth in eaſtnortheaſt, on the eaſt or the ſouth ſide lyeth a great Banck which lyeth off farre from the ſhoare, and on the off ſide goeth of flat. For to ſayle in there men may ſound it in alongſt by the eaſt or north ſhoare, until they be over the ſhoaleſt of the barre, there is upon it at halfe flood about foureteen foot water, and being over the barre, it will be againe foure fathom deepe, or thereabouts, then they may run in forth by theyr lead along by the ſouth ſhoare, untill they come within the river.

S. Gawens poynt. Foure or five leagues to the weſtwards of the Iſland Caldy, lyeth Saint Gawens poynt, the ſouth poynt of Wales, by ſome called the white poynt. About halfe an Engliſh mile ſouthſouthweſt from this poynt, lyeth a ſunken rock, The Crow. called the Crow, where of men muſt take heede.

Milford haven. Two leagues to the weſtwards of Saint Gawens poynt lyeth the haven of Milford, a broad and wide ſound, lying in at the entry northeaſt in, being come in within the poynts, men may goe up to the northwards, eaſtwards, and ſouthwards, unto divers places and roades. About by the north poynt, men may ſayle unto Daleroade, there it is good lying in three fathom & three fathom and a halfe at low water. When men come a little within the ſouth poynt in the open of Milford haven, there lyeth a little Iſland or rock like the Newſtone by Plymouth, being paſt that a little, they may run to the ſouthwards, into a bay, where they may lye landlockt for all windes.

Stockholm. A litte to the weſtwards of Milford-Haven lye two little Iſlands the ſouthermoſt is the ſmalleſt, called Stocholm, & the northermoſt Scaline. About two leagues north- Scaline. northweſt or northweſt & by north from thence, lyeth the Iſland Ramſey, there betwixt them hath the land a great Bay, called the Broad-bay. Ramſey lyeth at the north Ramſey. poynt, and Scaline at the ſouth poynt of the Bay, there Broad. in alongſt the ſhoare is good riding for north, northeaſt, eaſt & ſoutheaſt windes, in 7. 8. & nine fathom. Upon the north poynt of this Bay lyeth a little Towne, called Saint Davids to the northwards of lyeth the coaſt of Wa- S. Davids. les alongſt northeaſt unto Cardygan.

About 2 leagues weſt and by ſouth to ſeawards from the Iſland Scaline, and 3 leagues ſouthwards from Ramſey, lyeth that little Iſland Graſholm, which is a round Graſholm. cleane rock, & about foure leagues of from it lye alſo two little Lands, which are fowle, called the Smalles. The lying Smalles. of them, with the dangers there of, you may reade in the deſcription of Ireland.

On the northweſt ſide of the Iſland Ramſey lyet the Biſhop with his Clearks, theſe are rockes that lye of to the Biſhop with his Clearks. northwards and ſouthweſtwards of that Iſland a good way to ſea. About five leagues northweſt or ſomewhat northerly from Rameſy lyeth another great rock, called Maſcus, Maſcus. which is all round about foule, with many ſuncken rocks. He that commeth to ſaile thereabouts, or to lye by, muſt take very good heed of them.

The Iſland Ramſey, or the north poynt of Wales, and the ſoutheaſt poynt of Ireland, lye about eaſtſoutheaſt, and weſtnorthweſt diſtant 16 leagues.

Of the Tydes and Courſes of the Streames.

In Mounth Bay, and at the Lands end of England, a weſtſouthweſt and eaſtnortheaſt moon maketh high water.

In Silly a ſouthweſt and by weſt moone maketh full ſea.

A ſeaboard of Silly in the channell likewiſe a ſouthweſt and by weſt Moone.

In the entring of the channell a ſouthweſt and northeaſt Moone.

From Silly to the Lizard the flood falleth northeaſt, & the ebbe ſouthweſt.

Betwixt Silly and Londey the flood falleth northeaſt, & the ebbe ſouthweſt.

In Silly a ſouthweſt and by weſt Moone maketh high water.

On the coaſt of England betwixt the Cape of Cornwall and Hartland poynt a weſtſouthweſt, and weſt and by ſouth Moon maketh high water.

Thwart of the Iſland Londey a weſt and by ſouth, but on the Iſland, an eaſt and weſt Moone.

At the Iſland Londey, and at the Holmes, an eaſt and weſt Moone maketh high water.

At Briſtow within, a weſt and by north Moone maketh ful ſea.

At Mildford haven an eaſt and by north, and weſt and by ſouth Moon maketh high water.

In the channell of Briſtow betwixt Londey & the Holmes, the floot falleth e. n. e. and the ebbe weſtſouthweſt.

Within the Holms towards Briſtow, the flood falleth northeaſt and by eaſt, and the ebbe ſouthweſt and by weſt.

Betwixt Londey and Milford, the ſtreame falleth northeaſt, and northeaſt and by eaſt.

Of the Depths.

Men may ſee on Silly the ſouth ſide in 52 fathom, & the ground there is ſtony, wit ſome red ſhels.

The lands end of England, men may ſee alſoo in 25 fathom.

Silly may be ſeene on the north ſide in 45. 46. and 48.

fathom, there the ground is oaſy, with ſome little ſtones amongſt it.

When men are to the northwards of Silly, it ſheweth firſt in two Iſlands, upon the eaſtermoſt they ſhall ſee a tower or little caſtle, to the eaſtwards of the 2 Iſlands, they ſhall ſee alſo two great hilly rockes, and to the weſtwards three high black rockes.

Weſtnorthweſt and weſt and by north ten or eleven leagues from Silly, the ground is oaſie and ſoft that men can ſcarce get any of it upon the lead, there come ſome little ſhels amongſt it.

Betwixt the Lands-end of England and Londey in the fareway, it is 45 fathom deepe, the land of Cornwall, men may ſee in 44 fathom.

Three or foure leagues without the land thwart of Saint Yves, Stoupert, or Padſtow, the ground is ſharpe and rocky, but neerer the land it is all ſandy ground.

Betwixt S. Yves and Hartlands poynt are many white chalky hills alongſt the coaſt, eſpecially neere by Stoupert or Padſtow, whereby this coaſt is to be knowne.

In the channell betwixt the Holmes and Briſtow, it is deep 12. 13. and 14 fathom, and men may ſee the land on bot fides.

Upon the coaſt of Wales about Milford, and to the northwards of it, men may ſee the land in 42 and 45 fathom.

Courſes & Diſtances.

From the Lizard to the Lands end weſtnorthweſt 9 or 10 leagues.
From the Lands end to Silly w.ſ.w. 8 leagues
From the Lizard to the Gulfe, the courſe is weſt and by north. 10 leagues
From the Lands end to the Gulfe, the courſe is ſouthſouthweſt 3 leagues.
From the Gulfe to Silly weſt 5 leagues.
From Silly to the Caskets eaſt, ſomewhat ſoutherly 55 leagues.
From Silly to Uſhant, the courſe is ſoutheaſt and by ſouth 35 leagues.
From Silly to C. de Finiſterre, ſouth and by weſt weſterly 150 leagues.
From Silly to Cape Cleare in Ireland northweſt and by north 46 leagues.
From Silly to Waterfoord north, & by weſt 40 leagues.
From Silly to the C. of Cornewall northeaſt 9 leagues.
From the C. of Cornwall to S. Yves eaſt and by north 5 leagues.
From S. Yves to Stoupert poynt, northeaſt and by eaſt 9 leagues.
From Stoupert to Hartland poynt northeaſt and by north 9 leagues.
From S. Yves tot Hartland poynt n. e. 18 leagues.
From Hartland poynt to the Iſland Londey north 4 leag.
From the C. of Cornwall to Londey northeaſt and northeaſt and by north 25 leagues.
From the C. of Cornwall or Milford in Wales northnortheaſt 32 or 33 leagues.
From Silly to Milford northnortheaſt, ſomewhateaſterly 46 leagues.
From the Cape of Cornwall to the rock Tuskar nort and by weſt 40 leagues.
From the Cape of Cornwall to Waterford northnorthweſt 40 leagues.
From the weſt end of Londey, to Biddeford eaſtſoutheaſt 5 leagues.
From Biddeford to Ilfercomb e. n. e. 4 leagues.
From Londey to the Holmes e. n. e. 20 leagues.
From the Steepholme to the river of Briſtow northeaſt ſomewhat eaſterly 12 leagues.
From the Steepholme to the Naes weſtnorthweſt about 7 leagues.
From the Naes to S. Gawens poynt weſt, ſomewhat northerly 13 leagues.
From S. Gawens poynt to Milford haven northweſt & by north 3 leagues.
From the Iſland Scaline to Ramſey northnorthweſt 2 leagues.
From Londey to Milford north & by weſt and northnorthweſt 12 or 13 leagues.
From Milford to the Cape of Cornewal ſouthſouthweſt 32 leagues.
From Milford to Silly ſouthſouthweſt, and ſouthweſt & by ſouth 40 leagues.

Heights.

The ſouth ſide of Silly lyeth in	50 degr. or a litle more.
The Cape of Cornwall lyeth in.	50 degr. 25 min.
Londey lyeth in	51 degr. 13 min.
The Holmes lye in	51 degr. 30 min.
Milford in	51 degr. 46 min.
The Yſland Ramſey in	51 degr. 50 min.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Lizard when it is 5 or 6 leagues eaſt and by north from you.

Mounts Bay. The Lizard.



Thus ſheweth the Lizard being eaſt from you 4 or 5 leagues.



Thus ſheweth the Land betwixt the Lizard and the Lands-end, when the Lizard lyeth about eaſt and by north; and Mounts-bay north from you.

Land-

Lands-end n. n. w.

Mounts-Bay n e. by n. and n. n. e.



Thus ſheweth the Lands-end, and the land to the eaſtwards of it, when it is northnorthweſt, and Mounts-bay is north-eaſt and by north, and northnortheaſt from you, being a league from the land.



The Lands-end ſheweth it ſelfe thus, when you come in right within ont of the ſea.



The Lands-end being eaſt from you ſheweth thus.

Eaſt

The Lands-end of England.



Thus ſheweth the Lands-end when it lyeth ſoutheaſt and by ſouth ſeven or eight leagues from you, and the round Hill to the northwards of it eaſt, then you may even ſee the low land betwixt them both.



Thus ſheweth Silly, being eaſt northeaſt from you.



When Silly is ſoutheaſt from you, it ſheweth thus.



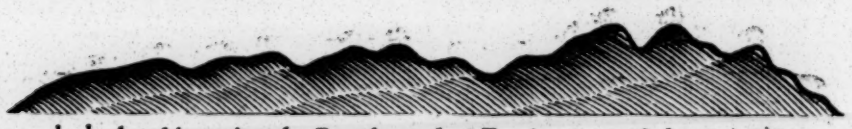
When Silly is eaſt 5 or 6 leagues from you it ſheweth thus.



Silly, being ſouthweſt from you, ſheweth thus.



When Silly is ſoutheaſt and by eaſt from you, it ſheweth thus.



Thus ſheweth the land betwixt the Lands-end of England, and the C. of Cornwall, or the Iſland Breſam, when you are on the Back-ſide of the Lands-end.



Thus ſheweth the C. of Cornwall, when it is eaſt and by ſouth from you, ſo farre that you may but even ſee it from the poop.



Thus ſheweth the land betwixt the C. of Cornwall, and S. Yves, when it is about 4 leagues from you.



Thus ſheweth the land, when you are before or thwart of S. Yves, about five leagues without the land.



To the weſtwards of Stoupert ſheweth the Land thus, when you ſayle alongſt by it 2 or 3 leagues without the Land.



The Land to the eaſtwards of Padſtow or Stoupert ſheweth thus, when it is 2 leagues eaſt and ſouth from you.



The Land of Stoupert or Padſtow ſheweth thus, when you ſayle alongſt by it, 3 or 4 leagus without the land.



When the Iſland Lon ley is north from you, it ſheweth thus.



When the Iſland Londey is n. n. weſt from you, it ſheweth in this forme.

Land-

The



Thus ſheweth Ilfercomb, when you are right before the entry of it cloſe by the Land.



Thus ſheweth the Coaſt of England betwixt Ilfercomb and the Holmes, when you ſayle alongſt by it.



Thus ſheweth the Land of Wales from Cardief to Wormeſhead.



Thus ſheweth the coaſt of Wales betwixt the Iſland Caldy and Milford-haven, when the northermoſt is northnortheaſt, and the ſouthermoſt is eaſtſoutheaſt from you, and that you may but even ſee it from the poope.





The Land betwixt Tinbuy and Milford ſheweth it ſelfe thus, when you ſayle alongſt by the Land, as is pourtrayed in the 2 figures, as the A A belongeth one to the other: the ſpire of the tower of Tinbuy is very white.



The Land from Milford-poynt unto the poynt of S. Davids-head, ſheweth as is pourtrayed in theſe 2 figures.



From Milford to Tinbuy, men ſayle alongſt by the coaſt, about 4 or 5 points it is moſt plaine Land, like ſand hills. About two leagues to the weſtwards of the point of Tinbuy, ſtandeth a Spire tower, with 2 other ſmall flat little towers more, whereby the coaſt thereabouts is eaſy to be knowne.

The ſixth Demonſtration.

Where in

The Southeaſt and eaſt coaſt of Ireland is deſcribed betweene Corckbeg and Hedenhoo or Houth.

FRom the Lands end of England to Waterford, the courſe is northnorthweſt, with that courſe you ſhall fal right with Waterford. But from Silly to Waterford, the courſe is north and by weſt, ſomewhat northerly forty leagues: betwixt both it is all oaſie and ſoft ground. Nine or ten leagues in the offing from Ireland lieth a ſand banck of forty fathom deepe, where commonly fiſhermen lye to fiſh, that is a certaine mark of the diſtance of the land, when you finde it in cleare weather, and when there is good ſight, then you may ſee the high mountaine of Dongarvan.

The hill of Dongarvan.

If you ſayle from the Lands-end of England with a northweſt courſe 43 leagues, ſoo ſhall you fall before the Liver of Corckbeg, it is there a good way upwards with a low water, 7. 8. & 10. fathom water.

Corckbeg.

Foure leagues to the eaſtwards of Corck-haven lieth an Iſland, called Ballecotton, within it men may ride for

Ballecotton Iſle.

weſterly and ſoutherly windes, in foure, five, or ſix fathom. Corck & Jochull lye eaſtnortheaſt and weſtſouthweſt, diſtant ſeven or eight leagues.

The haven of Jochull is a broad haven, where men muſt goe in at high water, by the eaſt land it lyeth in northweſt and northweſt and by north. The weſt ſide is a ſandy ſtrand al alongſt to the towne.

Jochull.

About a league ſouth and by weſt from the havens mouth of Jochull, lyeth a little Iſland called Chappell: under it on the eaſt ſide is a good road. He that commeth before Jochull at a low water, may goe under that foreſayd Iſland to ride there, and ſtay for the laſt quarter flood, then there is foure fathom water upon the banck. At the weſt point of the Havens mouth lyeth a rocke within it. About halfe wayes to the towne ſtandeth a Priory, before it men may ride, they may alſoo edge over to the eaſt land, and then run up the River.

Coppe Iſle.

Within

De Zuyd ooſt zyde van
YERLAN
Van Dubling tot aen't Cy
Corckbeg.
't Amſterdam,
By Iacob Theuniſz op 't
inde Loots-man.

Corckbeg
Kara Quin oſte C.de Quin
Iochul al: Iouchal
Ballicotton
Coton ile
Capel ile
't hoge landt van Dungarvan
Dungarvan
Ardmore point
Waterfoort
Clookrod
Roße
Dunbrak Abb.
Balliback
Dunkamon
Bumhil
Bannogh
Ballateigh
Salkis
Blakrock
Scakum
Kamey
I Smeals

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een Graet

Dubling

Klmtarf

Rmgsondt

Poulbeg

Suycker broodt

Dalke

Sandt van Dalke

Bray

Brakel

Vlackehoeck

Vlackeschelfgat

Glasserman

Glasserman Punt

Arkloo

Troebd

Samdvoort

Blauwe steylvoort

Carickcom

Glasserman

Ilascus

D U B S

CATERLAGH

FORD

Ardi-
more.

Dongar-
van.

C. Quin

Water-
ford.

Tower
of Wa-
terford.

The Sal-
tees.

Within it is three, foure and five fathom deep. From the eaſt ſide liet a rane of rockes, at leaſt halfe wayes over in the havens mouth, a little without the rocks it is at low water no more then five or ſixe foote water, but at high water it is deepe enough.

Foure leagues to the eaſtwards of Jochull, lyeth Dongarvan haven, betwixt both lyeth an out poynt; a little to the eaſtwardes of it ſtandeth a hich blacke Tower, called Ardimore, which may bee ſeen wel foure leagues at ſea, within it is a bay, which is a good roade for weſterly windes in ſeven or eight fathom.

Ardimore.

Dongarvan. Dongarvan is a narrow tyde-haven, the mouth off the haven is ful of rockes, and at low water it falleth drye, men muſt goe in there at high water, & runne in through betwixt the rockes, it lyeth in northnorthweſt, within it is deepe enough. The towne Dongarvan lyeth upon the weſt ſide of the haven. From Dongarvan to Waterford are eight leagues.

C. Quin Within Dongarvan, northnorthweſt landwards in lyeth the mountaine of Sleges, which men doe cal the high mountaine of Dongarvan, or Cape de Quin, or Caray Quin, it ſhewed it ſelfe wit three exceeding high hommockes, farr above all other landes thereabouts, men may ſee it at ſea alongſt a great part of the ſouth coaſt of Ireland.

When you ſhall have that mountaine northnorthweſt from you, and ſayle in right with it, you ſhal fall right with Dongarvan.

When you ſhall have it north from you, and ſayle in right wit it, then you ſhall fall with Iouchul; being northnortheaſt, then you ſhall fall with Corck, but when it ſhall be n. w. and ſo run in, youh ſhall fall with Waterford.

Waterford. The haven of Waterford lyeth about five leagues to the weſtwardes of the ſ. eaſt poynt of Ireland, being called Carnaroort, the coaſt betwixt both lyeth eaſtnortheaſt and w. ſ. w. and ſheweth in ſelfe in the offing, within the land, with high hilles two and three double one above the other, but by the ſea ſide it is all low land, where you may ſee many flat Towers upon it, as you ſayle alongſt by it. The eaſt poynt of the haven is a low rock poynt, bit it is cleane, upon it ſtandeth a high white flat Tower, called the Tower of Waterford, which you may ſee farre off at ſea, & is a perfect mark to know this haven by, there ſtand many more flatt Towers to the weſtwards alongſt the coaſt, but this is better to be ſeen then all the reſt, becauſe it is white and higher then the other. The weſt poynt is a high and fowle poynt, there lyeth a ſhoale ſouthſoutheaſt off into ſea, from it the channel is broad and cleane without it, it is eleven and ten fathom deep, & in the havens mouth ſeven fathom, and ſomewhat further in ſixe fathom, it lyeth in north and north and by weſt, within this river within the eaſt poynt is a good roade in foure or five fathom, a league within the rivers mouth there lyeth on the weſt ſide a ſteepe poynt, from thence beginneth a ſhoale lying to the northwards alongſt the ſhoare unto the ſteep poynt of Paſſage, and ſhooteth over from that poynt with a tayle, towards the eaſt ſhoare. Paſſage is a village where men paſſe over, lying on the weſt ſide of the river, a little to the northwardes of the foreſayd ſteepe poynt.

Tower of Waterford.

Betwixt that village, and that poynt on the weſt ſide is a good roade very fit as wel for them that are bound out, as for them that are bound up. In ſayling up you muſt take heede of a little ſhoale that lyeth off by caſtle (ſtanding on the eaſt ſide of the river) ſomwhat thwart over, the River downwards, at high water there is no more then two fote water upon it, aman that looketh for it, may ſee it, it is alſo flat that a man may ſound it. About halfe a league northwards up the River from Paſſage, there goeth another River weſtwards up to Waterford.

About halfe wayes betwixt the haven of Waterford and the poynt Carnaroort, lye 2 little Iſlands about half a league from the ſhoare, called Saltees, the ſouthermoſt is the greateſt and lyeth diſtant from the Tower of Waterford, directly eaſt almoſt three leagues. Betwixt theſe two Iſlands you may ſayle through in five, ſixe and ſeven fathom, but you muſt keep neereſt the ſmalleſt or northermoſt Iſland, for to avoyd ſome ſuncken rockes that lye at the north end of the great Iſland, and at low water are drye.

The Saltees.

From the northermoſt or ſmalleſt Iſland of the Saltees towardes the maine land, lyeth off a ledge of rockes where men were wont toe goe over on foote, but now may ſayle over. For to ſayle betwixt the Saltees and the main land, you muſt leave two thirds of the diſtance of water from the Iſlands; and one third part from the maine, and you ſhall have at low water about two fathom deepe.

About a half league without the ſouthermoſt Iſland of the Saltees, lyet a rock above water, called Kinbegh, and ſ. weſt about ſo farre from it, & ſ. & by weſt from the ſouth end of the Saltees lyeth a ſuncken rock, called Kimor, of the bigneſſe of a ſhip, it commeth with halfe ebbe even above water, it is ſo ſteepe that a man may lie with a ſhipps ſide againſt it, and have 14 fathom water, ſo that a man (without any danger) may ſayle alongſt by it, as neere as he will. A man may alſo (if need require) ſayle through betwixt Kinbegh and the greateſt Iſland of the Saltees; but a ſeaboard off all is beſt and ſecureſt.

Rinbegh

Kimor.

To the eaſtwards off the rock Kinbegh, ſoutheaſt from the greateſt Iſland of the Saltees, lye alſo ſome ſuncken rockes called the Frailes, which may beſeen at low water, there men may alſo ſayle through within them Northeaſt from the Saltees lye alſo rockes, the ſouthermoſt is called the Tuns, and the northermoſt the north rocke.

The Frails.

Tuns & northrock.

Nortnortheaſt from the greateſt Iſland of the Saltees, or from Kinbegh, and ſ. weſt and by ſ. from Carnaroort, lyeth one rock above water, called Blackrock, that is cleane and eleare round about, ſo that a man may ſayle round about it freely, without feare of danger. But a quarter of a league eaſtwards from it, lyeth a ſuncken rocke called the Barrel, of that a man muſt take heed.

Blackrock.

Barrel.

Under the Iſlands of both the Saltees, a man may ride, under the greateſt at the n. weſt ſide neereſt the north end: the marke or knowledge of the road is, a black rock like a boat turned upſide downe, right againſt that you muſt anchor in ſeven, eight or nine fathom, there it is good ſand ground, and landlockt for an eaſtſoutheaſt, ſoutheaſtand a ſouth winde, a ſouthweſt winde bloweth alongſt the ſhoare. If you anchor neerer the ſhoare in 5 fathom or thereabout, there it is rough ground.

Road under the Saltees.

Under the ſmalleſt Iſland a man may ride at the eaſt ſide in 7 or 8 fathom, ſo that the north poynt of the Iſland lye n. n. weſt from you, there you ſhall lye neere the landlockt for ſ. weſt and n. weſt windes.

From the poynt of Waterford the ſhoare lyeth to the eaſtwardes, within the Saltees, eaſtnortheaſt, until Carnarooth, with many bayes, and all oaſie and black ſandy. A man being acquainted there, ſhould at a need in many places finde good roads, there is nothing that can hurt you except a little fowle place a little to the w. ward of Carnaroort cloſe by the ſhoare.

He that commeth out of Waterford, and will goe about to the ſouthwards of the Saltees, muſt not go more eaſterly then e. ſ. eaſt, for to go cleare of the fowle grounds, which lye to the ſouthwardes of the Saltees, and when the Saltees ſhall be north of him, then lyeth the courſe from thence to the Tuskar, directly northeaſt, or a little more eaſterly. But for to go alongſt without the Tuskar, a man muſt goe at leaſt northeaſt and by eaſt to goe cleare of him.

For to avoyd the fowle grounds of the Saltees.

The Tuskar is a great black ſmooth rock, lying like unto a ſhip turned up-ſide down, but it about twice ſo great, at the north ſide of it lye alſo two ſmall rockes under water. The Tuskar lyeth from the poynt of Grenoore ſ e. & by eaſt, and e. ſ. eaſt, diſtant one league: from the Saltees n. n. eaſt, foure leagues and a halfe, from Black-rock alſo eaſt northeaſt, two leagues and a halfe, and from the Lands end of England n. and by weſt.

Tuskar.

Southeaſt and by ſouth about ten leagues from the Tuskar, lye two little Iſlands cloſe one by another, about foure leagues from Graſholme, called the Smaels, at high water & ſpring-tydes the water floweth over them, the northermoſt is called Scakum, & the ſouthermoſt is called Kamey, there lye off in the ſea 2 little ſhoals from them, the one north-northweſt and the other ſouthſouth-eaſt, Betwixt the Smals and Graſholme lyeth alſo a ledge of rockes, which at louw water man bee ſeene above water. It is not without great danger to goe through betwixt them both, eſpecialy with calmes, by reaſon of the tyde that runneth very ſtrong there through; an eaſt ſouth-eaſt moone maketh high water without the Smaels.

Smaels.

Maſcus rock.

From the Tuskar eaſt and by ſouth about eight leagues, lyeth alſo a geat rock, with many ſmall rockes round about it, called Maſcus. Hee that commeth from England and wil ſayle towards Ireland, muſt take great heed there of, eſpecialy when as through weſterly or northerly windes he ſhall be driven a little to the eaſtwards of the courſe.

Road under Carnaroort.

For to anchor under the poynt of Carnaroort, comming from the weſt, you muſt take heed to come no neerer the ſhoare then in ſixe fathom, untill that you ſhall be paſſed by the high hill that lyeth to the weſtwards of the poynt, when you ſhall, have brought out the mill to the eaſtwards the length of a capſtane barre, then you many anchor in 9 fathom. There is very good riding.

From Carnaroort to S. Margets bay, the ſhoare lieth along northeaſt one league, it is betwixt both rocky and fowle, but the fowle ground lieth not farre off at ſea. For to keep cleare without it, you muſt keepe ſo far off twe ſhoare that you may ſee the topps of the double land within about the cliffe land, and you need not feare, but if you come ſo neere the ſhoare that the double land within bee covered of the foremoſt cliffe land, or that thereby it get out of your ſight, you ſhall then ſurely ſayle upon the foreſayd rockes.

By S. Margets Bay upon the foreſayd land ſtandeth a Gentlemans houſe in the hills, when you have brought that with the mill that ſtandeth within, one in the other, then you may goe into the roade, and leave the rockes which lye above water halfe wayes over the Bay, either on ſtarboard or larboard of you, anchor there in five or ſixe fathom, ſandy ground.

About ſ. ſ. e. from S. Margets Bay off at ſea, lyeth a ſuncken rocke, that at low water lyeth dry, called Caliach, for to avoyd it, take heed unto theſe markes: when you come from Carnaroort, and have Black rock with the gread Iſland of Saltees one in the other, and keep them ſo, and then ſayle on northeaſt, you ſhall goe right upon this ſuncken rock. For to goe to the ſouthwards of it then keepe black rock with the ſmalleſt Iſland of the Saltees one in the other, or els for to goe to the northwards of it, keep Blackrock without or to the eaſtwerds of the great Iſland, and then you ſhal not need to ſeare any danger of this ſuncken rocke.

Caliach.

Marks for Caliach.

From S. Margets bay ot the point of Grenore, lyeth the coaſt northeaſt halfe a league.

The poynt of Grenore is not very high, but ſteep and flat on the toppe, off from it goeth a ſhoale about a quarter off a league into ſea eaſt and by ſouth, off very rocks & ſtones, the which at low water falleth dry a good wayes off the ſhoare. The ſhips comming from the ſouthwards that are bound for Dublin or Waſhford, goe in commonly betwixt the Tuskar and the foreſayd rockes off Grenore, for to come within the banck or ſande. Oftentimes they goe into Waterford for to hire a Pilot to bring them up. For him that will be his owne Pilot, wee wil deſcribe al the markes that are to be taken heed of, as well for to ſayle into Grenore, as alſo into the deep or haven of Waſhford, as they are now at this time, and hereby doe adviſe men that they doe not alwayes continue ſo, becauſe by reaſon of the floods, the channell doth ſhift, and ſtretch it ſelfe out more northerly, and alſo waxeth deeper.

Riffe of Grenore

Comming out of the ſea about a league or two neere unto Grenore, you ſhal ſee the high ragged double land high above the point of Grenore, which (as is a foreſayd) is not very high, but flat on the top. By that ſayd high ragged double land within, men do know the entrance off the channell of Waſhford. When men doe come from the ſouthwardes and the eaſtwardes. When you have ſight off the poynt off the Genore, you may boldly goe right with it, untill that ſayd double land doe ſhew it ſelfe, by eſtimation, but a mans length above the poynt off Grenore, as ſheweth this figure.

The high land over the poynt of Grenore.



The ſtat foore land of Grenore.

Then are you farre enough from the ſhoare, not to bee in any danger of the ſhoale of Grenore: Or els you moy fit you ſelfe that you come no neere the ſhoare then in ſixe or ſeven fathom: but yet for need a man may borrow off the ſhoale in five fathom, or foure fathom & a halfe, but you muſt alſo take heed that you goe not ſo farre off from it, that you have more then eight or nine fathom depth, ortherwiſe you ſhould come to neere the banck that lyeth to the northwardes off the Tuskar, which on the inner ſide is very ſteepe and needle too, upon it is no more then twelve foot water, and cloſe by it ten fathom deepe. If that you keepe the foreſayd ragged high land (as is before ſayd) a mans length above the land off Grenore, and ſo ſayle to the northwardes, ſo long untill you bringh that ſame high land without to or the northwardes off the ſteepe poynt off Grenore, then are you yet right againſt the ſhoale & muſt yet ſayle to the northwardes, keeping the mill that ſtandeth next unto the poynt of Grenore, ſo that you may ſee the top off it even right over the ſteepe poynt off Grenore. When you keepe it ſo, you ſhal not be in any danger off the ſhoale or riffe. Then as ſoone as you ſee a caſtle (which ſtandeth a little without the ſtrand) come without the poynt off Grenore, then may you boldly ſayle towardes it, by your lead, into the Bay of Grenore.

Greenbay,

The ſayd mill ſtands upon the land of Grenore, a little within the land, that may ſerve for a mark for not to come too neere as well to the ſhoare as alſo to the ſhoale or riffe, for if you come not ſoo neere the ſhoare that you looſe the mill out of your ſight, but keep ſo farr of, that you keep ſight of it, then doe you keepe farre enough from the ſhoare, and from that rocky ſhoale or riffe. Then when the mill ſhall come to lye ſouthweſt & ſouthweſt and by ſouth from you, ten you are even paſſed the ſhoale or riffe, go then n. weſt and by weſt, and northweſt, according as the winde and tide ſhall be into the Bay of Grenore.

Or els you may obſerve another marke: Sayle on ſoo long north, untill that you ſee a long black houſe come out to the weſtwards of Grenore, upon the low land, the which ſheweth like a black rock upon the land: then you may luff on towardes the ſhoare in foure or five fathom alongſt by the riffe, and run in ſo untill that you get ſix or ſeven fathom, and preſently afterwardes ſhall be eight or nine fathom deepe, but then afterwardes is it ſhoale by little and little, as you come neere the ſhoare.

If you

If you have a large winde: then ſayle ſo long to the northwards untill you ſee another little black houſe come out without the poynt, ſayl then unto it, you ſhall (ſoo doing) have no danger off the riffe.

In the Baye it is ſhoale water, you may lye there ſo neere the ſhoare as you pleaſe; in ſix, five, foure, and alſo three fathom, and there you can get a Pilot to bring you to Waſhford.

For to ſayle out off Grenore bay

For to ſayle out of the bay of Grenore, you may run out ſo cloſe by the ſhoare, that you may ſee but the wings of the mill over the Foreland, and ſo goe on eaſt ſoutheaſt into ſea alongſt by the riffe, or according as the winde and tyde ſhall be, ſo long untill that you may ſee the roofe of the mill, then you may goe larger, and by little and little goe more ſoutherly, and then you ſhall ſee it ripple upon the riffe.

For to tayle too Waſhford.

For to ſayle out of the Bay of Grenore towards Waſhford with a ſhip that draweth little water, you may boldly runne alongſt by the ſhoare, and ſayle through betwixt the Haenmans path and the Sounder, that is a channell where at high water and ordinary tijdes in eight foote water; but with a ſpring-tijde there is ten foot water.

The Haenmans path is a dry ſand, which maketh the ſouth ſide of the channell of Waſhford, lying off from the Souder.

The Souder that is the ſouth point of the maine land of Waſhford-haven.

Shoale Waſhford.

But if your ſhip goe deepe, then you muſt (ſailing out of Greenbay) goe further off from the ſhoare, for to come without the ſand that ſhooteth off from Haenmans path, yet you muſt alſo take heed that you goe not to farre there-off, for if you come ſo far off in ten fathom, you ſhal come too neere unto the banck that lyeth without, which is on the inner ſide very ſteep and needle too, therefore go no further from the shoare then in ſeven, eight or nine fathom, but comming ſomewhat more northerly about Haenmans path, then you may well goe off into ten and eleven fathom; alſo you may not come neerer Haenmans path then in ſeven fathom.

If you deſire to be upon the barre of Waſhford and to leave the ſhoale of Haenmans paths, to wit, to goe to the northwards, then take heed unto theſe markes: At the north ſide of the channell of Waſhford lyeth a high hill with a round hommock, which is to bee ſeen over the Foreland, and a little caſtle in the low land, a little above the ſtrand, appearing as if it were againſt the land; bring that round hommock a little to the northwards of the caſtle, and ſayle ſo in, but bring not the hommock within or to the ſouthwards of the Caſtle, for then you ſhould bee in danger of the ſand of Haenmans paths, unleſſe it were by neede, and with a bare winde, then you might borrow ſo neere to bring them one in another, and ſo to ſayle in, but it is beſt to keep them ſomwhat out one from another, to wit, the little Caſtle to the ſouthwards of the hommock.

If it ſhould happen that you could not ſee theſe foreſayd markes well, nor diſcerne them, then you may goe about the ſand of Haenmans path by your lead in ſeven fathom without any danger.

For to know then when you are far enough ſayled to the weſtwards, or are paſt Haenmans path, and are open before the channell, you ſhall ſee in the ſouth-land a little Caſtle that ſtandeth about foure leagues in the land within the ſtrand, in the ſide of the high land of Waſhford, about ſouthweſt and by weſt from you, when that ſhall bee upon that poynt from you, and that it ſtandeth betwixt the two northermoſt little ſandhills that are upon the foote ſtrand of the Soudre (which is upon the ſouth ſhoare) then are you paſt Haenmans paths; ſayle in then upon the marks of that little Caſtle, and the little ſand-hills over the barre of the haven; there it is at high water about ſixteen foot deepe.

As ſoone as you are paſt the outermoſt flat at the poynt of Haenmans paths, you ſhall goe ſomewhat neerer to Haenmans paths, although it bee very ſteep, that the tyde doth not bring you upon the tayle of the north-ground where the maſt ſtandeth, that is a foremaſt of a ſhip that is there loſt, and lyeth there ſuncken into the ſand, by the fore-maſt the north grounds are very ſteep and needle to, but without and within very flat going up.

In this channell and upon the Barre an eaſt and weſt moone maketh higheſt water: but the flood runneth yet afterward a half tyde ſtrong by the channell to the northwards; ſo that when it is higheſt water in the channell and upon the Barre, yet runneth the tyde thwart over the channel, therefore a man muſt keepe him ſo neere to Haenmans paths, as is ſaid, that is the cauſe that tayle of Haenmas path is caſt up ſtill more and more to the northwardes, and that the channell now lyeth out more to the northwards then it was wont to doe: And yet hereafter it is like that it will ſtretch it ſelfe more to the north wards, ſo that the foreſayd markes (by all likelyhood) wil not continue certaine alwayes. Even as the flood after the higheſt water, runneth yet a halfe tyde or 3 houres ſtrong (in the channel) to the northwards, ſo alſo runneth the ebbe a half tyde to the ſouthwards after the loweſt water, but not ſo ſtrong as the flood.

Being over the ſhoaleſt of the Barre, you ſhall have three & a half, and foure fathom, and in the channell betwixt the north grounds and Haenmans paths againſt the maſt 5 fahtom depth, runne in by Haenmans paths, all alongſt untill you come to the foot ſtrand, & then edge over to the nort ſhoare, for to avoyd the grounds which lye to the weſtwards above the Soudre, you may borrow of the ſhoale on the north ſide by your lead, into ten or eleven foote, according to the draught of your ſhip. In the right deepe of this edging over, you ſhall have at high water, fifteene foot depth.

The marke of this edging over is a white little caſtle that ſtandeth on the north ſide of the haven in the valley of the Land, when that commeth over the ſteep poynt of the innermoſt Iſland to the two that lye by the north ſhoare, and ſeemeth to be about a mans length high, then you may boldly run in n. w. with it, untill that a little chappell within the Land, and to the ſoutwards of Waſhford (a little or about a cables length to the northwards of that other forenamed little Caſtle on the north ſide of that high ragged land, that hath ſerved for a marke to ſayle over the Barre) commeth over a black hommock that you may ſee upon the high land, a little to the ſouthwards of the Caſtle of Waſhford, when you ſhall have brought theſe marks one in the other, edge then over again to the ſouth land upon the marks, for then you ſhall be above the ſands of the Soudre: & with that courſe alſo ſhall not be in danger of the taile of the ſand that ſhooteth off from the poynt off Paſſage, which is on the n. ſide, but it is there broad & large, that a man may there turne to & againe, it is altogether ſhoale water, of 10 & 10 foot & a half at high water. Sailing up upon theſe foreſayd marks, you ſhall come about the diſtance of the ſhot of a Coaſt peece without the Caſtle of Waſhford to the ſouth ſhoare, ſayle then in alongſt by it, & keep on the ſounding of the ſhoare untill you come within the caſtle, there you may anchor, & ſhall finde there about 3 fathom water; For a man that is there unaquainted, it is beſt to anchor there, becauſe before the towne lye ſome ſuncken rock; he that will lye before the town, muſt (right againſt the kay, or the head of the market) go a good ways off the ſhoare, becauſe of a ſuncken rock that lyeth thereabouts, and go right againſt the weſt end of the towne, and anchor there in 3 fathom, or thereabouts.

To the ſouthwards of the ſands, that lye to the weſtwards or above the Soudre, goeth a dreeke through, there is more water then in the edging over to the northwardes of the ſands. The marke for to ſail through there, is: That you keep the higheſt hommocks of the high ragged land (behind Waſhford) right over the caſtle of Waſhford, but there can be nothing gotten by it, with ſayling through there, in regard you muſt nevertheles go over the ſhoaleſt, after that you are paſſed the ſands of Soudre,

dre, to wit, over the foreſayd depth of ten and 11 foot.

For to ſail out from Waſhford, with a ſhip that goeth deep, you may not lade deeper then ten foot, or ten foot and a half for to come over the foreſayd ſhoale; you ſhall then ſail about to the northwards of the ſhoale that lyeth within, or to the weſtwards of the Soudre, & goe in and anchor betwixt the ſhoale and the Soudre, there you ſhall be landlockt for al windes, except for the ſouthweſt winde you have little ſhelter, you ſhall therefore bring out your beſt anchor, in the ſouthweſt, and the other in the northeaſt, becauſe that the winds that come out of the ſouth w. over the land, doe not put you upon the north grounds. There at the Soudre, you may take in the reſt of your lading, it is a league from the towne.

If you wil anchor before the Barre of Waſhford for to ſtay for the tyde, you muſt anchor a little to the northwards of the Barre, & go off ſomewhat until you have 8 fathom, there it is cleane ſandy ground.

In the night there are two fires made upon the Soudre for the Fiſhermen for to come in by night, by the Haenmans paths, he that will ſayle in by them, muſt keepe the higheſt fire a little to the ſouthwards of the other, for to avoyd the north grounds.

Beſides the deepe alongſt by the Haenmans paths, the Fiſhermen haven a little channell that goeth out clooſe by the north ſhoare, is is there about 6 foot deepe at high water.

Channell through the banks before Waſhford.

From the Barre of Waſhford a man may ſayle eaſt and by ſouth, and weſt and by north out and in through betwixt the banks into ſea, or out of the ſea, that is a large and broad channell.

For to ſayle from the Barre of Waſhford within the ſands through towards Dublin, you muſt keepe the ſounding of the ſhoare, and runne alongſt by it in ſixe, ſeven or eight fathom, you ſhall ſo ſayle alongſt about a cables length from the ſhoare, which is very cleane without any danger, ſo that any man (having but a little knowledge of the Land) may ſayle there alongſt by night, only you muſt take heed not to goe further from the ſhoare then in ſeven or eight fathom, for not to come foule of the bankes, which are on the innerſide very ſteepe and needle too.

When you have ſayled to the northwardes alongſt by the ſhoare, about two leagues from the Barre, you ſhall ſee three white ſpots or rockes in the ſand-hill, a little to the northwardes there of ſtandeth a peece of a wall, much like a pillar of a Church: Right againſt this pillar, a great Engliſh mile from the ſhoare, beginneth a ſand, called the Ruſch and Ramme, lying from thence alongſt the ſhoare to the northwardes, you may ſayle about it on both ſides, but it is beſt to keepe the ſhoare, and to runne through there within in ſixe or ſeven fathom; as is ſayd out of feare of the outtermoſt banckes, which are very ſteepe, and therefore cannot bee ſounded; Therefore men doe ſeldome uſe to ſayle there a ſeaboard of this ſand.

Right againſt this forenamed Ruſch and Ramme, the ſhoare maketh a Bay unto the poynt off Glaskarrick, when you are ſo farre as this poynt, then you are paſt the foreſayd ſand.

Point of Glaskarrick Channell through the banks before Glaskarrick.

The poynt of Glaskarrick is a low poynt, a little to the northwards of it ſtandeth a caſtle.

When you are without the banckes in the north channell, and deſire to come within the bankes, then keepe that caſtle (if you can get ſight of it) a little to the northwards of the low poynt, and runne boldly right in with it, unto the land, without feare of the grounds, there is a good channell, through the banckes; you ſhall not finde leſſe depth then 15 or 16 fathom, untill you come to the ſhoaling up againſt the ſhoare. This Channell lyeth in northweſt.

For to ſayle from Glaskarrick to Dublin, run all alongſt by the ſhoare (which is ſomewhat full of Bayes) and keepe you (as before) in eight, ſeven, or 6 fathom. Two great leagues to the northwards of Glaskarrick lyeth a ſand, a great halfe Engliſh mile from the ſhoare, called the Glaskarmen, the ground is very uneven betwixt both. But nevertheles run through within that ſand & keep the ſounding of the ſhoare, but not ſo far from it, that you come into ten fathom, for then you ſhould ſayle cloſe alongſt by the Glaskarmen, which is very ſteepe, and about two Engliſh miles, or a halfe Dutch mile long. Glaskarmen.

One Engliſh mile to the northwards of Glaskarmen lyeth the poynt of Arkelohead. Arkelohead.

Saylingh trough between the ſhoare and Glaskarmen, to the northwards, a man may ſee 2 poynts, to wit, Mizanhead and to the northwardes of it Wicklohead. If you keepe Wicklohead even within the poynt of Mizanhead, then you can take no hurt of the Glaskarmen. But if you would ſayle a ſeaboard of the Glaskarmen, then keepe Wicklohead a good wayes without the Mizanhead, and ſo runne alongſt a ſeaboard of it, and you can take no hurt of it: But if you keepe the poynt of Wicklohead but even without the Mizanhead, you ſhall not fayle to ſayle upon the Glaskarmen. Marker for to avoyd the Glaskarmen.

At the north poynt off Arkelohead lyeth a little ſtony ledge very ſteepe and needle to. A man muſt take good heed of it (comming from the northwards) and bound to the ſouthwards, and then muſt come no neerer it then in five fathom, towards the ſhoale lye ſome little rockes above water: when you kome from the northwards; & thoſe little rockes are weſtnorthweſt from you, then are you paſſed it, to wit, to the ſouthwards of that ledge; & then you may againe borrow of the ſhoare, upon the lead, commonly men doe keepe ſo farre of the ſhoare, that they can take no hurt of the foreſayd ledge. Ledge at Arkelohead.

At the north ſide of the poynt of Arkelo is a faire ſand-bay, there is a good anchor ground, and all over good riding in 8, 7, or 5 fathom, in this bay are good ſtore of herrings caught. Baye Arkelo.

Right againſt Arkelo runneth alſo a channell through the banckes into the ſea. For to ſayle in there out of the ſea, looke out for a round hill within the land: bring that weſtnorthweſt, or weſt & by north off you, & ſayl then in there boldly, keeping it ſo. But if you bring the round hill weſt of you, and ſayle ſo in, you ſhall ſayle upon the poynt of the north groundes, it is in that channel about ſeven or eight deepe. For to fail into the channel before Arkelo.

About an Engliſh mile to the northwards of the poynt is the river of Arkelo but very ſhoale, at high water there commeth no more then ſixe foot water.

The coaſt of Waſhford unto Wickelo lyeth moſt north & by eaſt, a little more eaſterly: But he that will ſayle without alongſt by the banckes or ſandes, muſt not goe more northerly then northnortheaſt, for to avoyd the grounds which lye about Wickelo, 3 leagues off from the land. And to the ſouthwards the ſouth grounds lye ſcarce a league from the ſhoare, there not long ſince a pilot keeping bad reckoning run without the ſandes alongſt north and by eaſt, and ſayled thwart of Arkelo, behind a taile of ſand that lyeth off from the north to the ſouthwardes, and he loſt his ſhippe. Arkelo lay from them (when they ſat upon the ſand) weſt & by ſouth.

About two leagues to the northwards of Arkelo lyeth Mizanhead it is a black head. Betwixt Mizanhead & Arkelo in the fareway it is eight and 9 fathom deep, is it alſo betweene them both alongſt the whole coaſt, good anchoring and cleane ground. Mizan head.

From Mizanhead to Wicklohead it is alſo 2 leagues, buth this reach is ſhorter they the other to Arkelo. Wicklo head.

One Engliſh mile to the ſouthwards of the point of Wicklo, lyeth a little rock cloſe by the ſhoare, called the Wolf, it commeth at half tyde above water, the Fiſhers boats run through within it, but is is not to be done with ſhipps. Wolf

Right to the ſouthwards of Wicklohead, ſomewhat further out then the poynt, lyeth alſo a rocky ſand, called alſo the Horſe-ſhoe, cloſe unto the poynt, about ſouth and by eaſt from it a man ſhould for need (when hee cannot do better) ſayle through there within it, but he muſt Horſe ſhoe

be

be very well acquainted with it, or els not well to be done; without, it is more certaine and beſt going off ſomewhat to deep. If you keepe the poynt of Brahead a little without Wicklohead, then you can take no hurt of it, or if you keep the high inner land, ſo that you may even ſee it above the land of Wicklo, and goe not altogether hidden behinde it, then you goe there without it in 5 fathom. The poynt off Wicklo is ſteepe & ſtony with a double top little hill, within ſtandeth a little chappell, when you can ſee that throug the ſaddle off the hill, then you are right againſt it, and have it on your ſide; the village of Wicklo lyeth to the northwards off the poynt in the Bay, there is a little haven, which at high water hath ten foot water.

In the Bay the ground is ſo hard & chindell, that the anchors doe not hold there, but without the Bay ſomewhat farre from the ſhoare, towards the Banckes, the ground is ſomewhat better.

Thwart of Wickloo alſoo is a channell through the bancks for to ſayle that out or in, keepe the Caſtle of Wicklo, that you may ſee it open of the poynt, thereupon you may boldly ſayle out or in.

Fourteene Engliſh miles from Wicklo lyeth the poynt of Brae, a high ſteep ſtony poynt, & the high land there about on the ſea coaſt.

Betwixt Wicklo and Brae lyeth out a flat poynt with a little Fiſher village, called Nicaſtell, there (ſayling alongſt) you have foure, five and ſixe fathom deepe, but from the flat poynt unto the ſteepe poynt of Brae, it is wel 14 fathom deepe, the land lyeth there about north and north & by weſt.

Within the land lyeth a high hill, of faſhon like a Sugarloafe, that is the fartheſt in the land off the three hills, which they call the Vineyards, when you have them through one another, and are northweſt, and ſo keepe them, then may you boldly thereupon run through the banckes into ſea, or out of the ſea, by theſe markes you may come in within the banckes that is a very large and broad channell.

Thwart from that foreſayd Sugarloafe to the ſouthwards of Brae lyeth a bancke that is not deeper then 4 fathom, very ſtony and ſharp ground.

Brahead is very ſteep, likewiſe alſo, the ground by it, is 10 fathom deepe cloſe by the ſhoare, to the northwards of the poynt lyeth a little tyde-haven, there ſtand the houſes called Brae on the north ſide.

From Brahead to the Iſland Dalke (lying at the ſouth poynt of the Bay of Dublin) the courſe is n. and by w. 4 Engliſh miles, there betwixt both goeth in a bay.

At the n. e. ſide of the Iſland Dalke lie ſome rocks, lying alongſt the maine not far from it. Men ſayle within the Iſland through and leave al the rocks and the Iſland lyeth to ſeawards.

The Sound betwixt the Iſland Dalke and the maine land, is called the Sound of Dalke, it lyeth northnorthweſt, and north and by weſt through, it is 7, 8, and nine fathom deepe, men may anchor under the Iſland, neareſt the Land, there is good ſandy ground, or ſomewhat further in, there lyeth a round rock, neareſt to the maine land, there men may make faſt a Cable on it, & an anchor thwart of the channell, towards the other rocks, becauſe of the tydes, for the tyde runneth there very ſtrong through. A ſouthſoutheaſt & a ſouth & by eaſt winde bloweth there right in, but in regard it is there very narrow, there can goe no great ſea, with a ſoutheaſt winde you are landlockt of the Iſland, and a ſouth winde commeth off the maine land.

From the Iſland of Dalke, untill you are paſſad the village of Dalke, the ſhoare lieth northweſt and by weſt, before the village you have ſome ſuccour for a ſoutheaſt winde, the winde being more eaſterly, you lye in the open ſea. You lye there in 8 or 9 fath. the nearer the Iſland the deeper, the place is called the Berton road; you may not anchor further to the weſtwards then before the village: to the weſtwards of the village the ground is foule & ſharpe.

The north poynt of the Bay of Dublin, called Houth or Hedenho, is a very high point, it ſeemeth a farre off as if it were an Iſland, but it is faſt to the maine land with a ſmall and very low necke: To the northwards of it lye the Iſlands Yrelands-eye and Lambey, thoſe may bee ſeene (being to the ſouthwards of the poynt Houth, & being before the entrance of Dublin) over that foreſayd ſmall necke of Land. Houth.

From the Sound of Dalke to the Barre of Dublin, the courſe in n. n. w. the fareway it is deep 9, 8, 7, 5, and four fathom, how nearer the Barre the ſhoaler water. When you ſayle up, you muſt keepe the weſtermoſt Rocke that lyeth without at the Iſland of Dalke, a handſpikes length open of the Iſland, or the other rockes, and ſhall ſo come before the entrance, without having any let or hinderance of the ſand. Or you may ſayle more to the eaſtwards right towards the low land of the norther ſhoare, & then by your lead alongſt by it to the Barre.

If you come from the northwards, you may runne in cloſe about the poynt of Houth by your lead, and then all alongſt by the norther ſhoare, untill you come to the mouth of the Barre, there alongſt it is the deepeſt water, but towards Dalck it is ſhoaler. From the ſouth ſhoare runneth of a great tayle of ſand, almoſt unto n. ſhoare. To the northwards of it goeth the deep in. Upon that tayle a little within the point ſtands a beakon of a maſt, made by the Engliſhmen called the Paerſing. Paerſing

For not to come neare this foreſayd ſand, comming from the ſouthwards, looke out for the Iſland Irelands-eye, keep that ſo, that you may but even ſee it over the low land cloſe after unto the high land of Houth, ſo you can take no hurt of that ſand. When the Tower of Saint Patrickes in Dublin which ſtandeth on the land ſide of Dublin, commeth right over that beakon the Paerſing, then are you yet right againſt the poynt of the ſand which ſhooteth out a good way to the northwards of the Paerſing. For to goe cleare of that, you muſt runne ſo farre to the northwards, untill the Paerſing commeth right over a little caſtle with three turrets, or little towers, which ſtandeth to the ſouthwards to the town, or when the Paerſing commeth betwixt that foreſayd little Caſtle & the towne, then are you above the point of the ſand, then goe in weſt and by ſouth untill you come over the ſhoaleſt of the Barre, there is at ſpring tyde 15 or 18 foot water, but at low water and neeptyde, not more then 6 foot, you may ſound it on both ſides. When you are over the ſhoaleſt of the Barre, then anchor within the ſand by the beakon in Poelbergh there is at high water 4 fathom deepe. The marke of this road is, that you bring that afore written hill like the Sugarloafe (that here before is ſpoken of, and ſerveth for a marke for to ſayle by into the Channell of Wicklo) over an other lower hill, then are you in the beſt of the road, bring out your beſt anchor in the ſouthweſt, againſt the blowing of the ſ. w. windes, which ſometimes come powring downe there very ſtrong out of the ſ. w. over the high land, and the other in the northeaſt. At low water the ſands lie dry there round about the road. Markes of the land. Road in Poelberg.

Men may alſoo anchor ſomewhat further in; at the morth ſide of the ſound, right againſt a village called Klantarie in a pool, where at low water remaineth 9 or 10 foot water: but round about the ſhip (as it is in moſt places of the haven) it doth fall altogether dry, ſo that there a ſhip hath but even roome to winde up to and again. Men do moore there ſouth ſoutheaſt and n. n. w. A ſ. e. & n. w. Moone maketh there the higheſt water. Road by Klantarie.

If the ſhips that come there be any thing great, they muſt ſtay in Poelbegh, cloſe before the Town it is very ſhoaly, and falleth at low water altogether dry: with an ordinary tyde men cannot come before the towne with a ſhip that draweth 5 foot water, but with a ſpring tyde with ſhips that draw 7 or 8 foot water.

At the north ſide of the river, a little further out then the town, right over againſt Ringſend, lieth a litte Iſland, within it is a fit place to make ſhips cleane.

The ſands or bankes that lie alongſt this eaſt Coaſt of

Ireland from the Tuskar unto Dalke, are on the out-ſide, or on the eaſt ſide very ſteepe and needle too, ſo that men may not come nearer them then in 24 & 25 fathom, in 20 fathom men are cloſe by them, they are not deeper at ſome places then in one fathom or one fathom and a halfe: but at the north end by Dalke, about two fathom and a halfe, and there fathom deepe, al ſtony ground, & lye on the off ſide alongſt n. n. eaſt, and ſ. ſ. weſt, at the north end they lie about 8 Engliſh miles from the land. If you are bound for Dublin, and will go without theſe ſands, run then ſo far to the northwards, untill you can ſee the little Iſland (Irelands-eye) without the poynt of Houth or Hedenhoo, run then right on to Houth or Hedenhoo, and then you ſhall take no hurt of the north grounds.

Marks for to ſayle without the banks.

Of the Tydes & Courſes of the Streames.

Betwixt Corckbey, alongſt the Coaſt before Waterford into the poynt of Cornaroort, the Iſland falleth alongſt the Coaſt e. n. e. and the ebbe w. ſ. w.

At Waterford an eaſt and by north, and weſt and by ſouth moon maketh high water.

Without the land in the fareway betwixt Silly and Ireland, a ſouthweſt and by weſt moone maketh high water.

In the channell or entrance of Waſhford, an eaſt and weſt moone.

The flood runneth there to the northwardes, after high water a halfe tyde, & the ebbe contrariwiſe to the ſouthwards, a halfe tyde after low water, but not ſo ſtrong as the flood.

On the eaſt Coaſtes of Ireland to the ſouthwards of the bay of Dublin, a ſout ſoutheaſt and northnorthweſt moone maketh high water.

At Dublin a ſoutheaſt and northweſt moon.

The flood runneth from the Tuskar without the bankes alongſt betwixt Ireland and England northnortheaſt, & the ebbe ſouthſouthweſt.

On the Coaſts a ſouthſoutheaſt and northnorthweſt moone maketh high water.

The flood commeth here from the ſouthwardes, and alſo from the northwards, about the north part of Ireland, & meete one another about right againſt Carlingford, where they ſtoppe one the other. The ebbe contrawiſe falleth (to the northwards of Carlingford) to the northwards, and (to the ſouthwards of Carlingford) to the ſouthwards.

Of the Depths.

From Corckbey to the eaſtwards unto Waterford men may ſee the land in 24 fathom, the moſt part of the ſouth Coaſt of Ireland men may ſee it in 35 and 40 fathom. In 35 fathom you ſhal not be farre from the land, therefore come no neerer Ireland by night then in 40 fathom.

Courſes and Diſtances.

From Corckbey to Waterford, the Coaſt lyeth moſt eaſt-northeaſt 10 or 20 leagues.

From Waterford to the Iſlands of the Saltees eaſt, but to goe about to the ſouthwards of them e. ſ. e. 3 leagues.

From the ſouth end of Saltees to Black-rock northeaſt and by eaſt 2 leagues.

From Blackrock to Carnaroort n. e. 1 league.

But to Grenore 2 leagues.

From the Saltees to the Tuskar eaſtnortheaſt, but from without the foule ground to the ſouthwardes of the Saltees northeaſt and northeaſt and by eaſt 5 leagues.

From Blackrock to the Tuskar eaſtnortheaſt 3 leagues.

From the Tuskar to Grenore northweſt and by weſt, & weſtnorthweſt 1 league.

From Grenore into Grene-bay firſt northweſt and by north, & then weſtnorthweſt 1 league.

From Greene-bay to the Barre Waſhford, north & north & by weſt one great league.

From the Barre of Waſhford unto Waſhford about one league and a halfe.

From Waterford to Groſholm eaſt & by ſouth 21 leag.

From the Tuskar to the rock Maſcus eaſt and by ſouth 8 leagues.

From Tuskar to the rocks Smales ſoutheaſt & by ſouth about 10 leagues.

From Tuskar to the lands-end of England ſouth end by eaſt ſomewhat northerly 43 leagues.

From Waterford to the lands-end of England ſouthſouth-eaſt, but to Silly ſouth and by eaſt ſomewhat ſoutherly 43 leagues.

From the poynt of Glaskarrick to the poynt of Arkelo north and by eaſt 4 great leagues.

From Arkelo to Mizanhead north and by eaſt, ſomewhat eaſterly 2 leagues.

From Mizanhead to the poynt of Wicklo north and by eaſt ſomewhat eaſterly 2 leagues.

From Wicklohead to the flat poynt by Nicaſtle north, 2 leagues.

From Nicaſtle the poynt of Brae north, and north & by weſt 2 leagues and a third part.

From Wicklohead to Braehead north, and north and by weſt 5 leagues.

From Braehead to the Iſland of Dalke north & by weſt 2 leagues.

From Dalke to the Barre of Dublin northnorthweſt 2 leagues and a half.

From the Sound of Dalke to the poynt Houth northnortheaſt 2 leagues and a halfe.

The Bankes lye from the Tuskar to the northend northnortheaſt and ſouthſouthweſt

From the Barre of Dublin to Holy-hill in the Iſland Angleſey eaſt and by ſouth 19 leagues

From the Barre to the Town Dublin w. ſ. w. two leagues

Heights.

Waterford, or the Tower of Waterford lyeth 52 degr. or a little more.

How theſe Lands doe ſhew themſelves at Sea.



The land a little to the eaſtwards of Kinſale ſheweth thus.



The land to the eaſtwards of Corck to Jochull, ſheweth in this forme.

Old

A



Old ruined houſes.

The Rocks betwixt Jochul and Corck.



When you are to the eaſtwards of Corck not far from the land, and that the harbours mouth doth begin to open, the ſheweth the land as it is deſcribed in theſe two figures, at the AA, belonging one to the other, being neare the land it ſeemeth to behigh land, but a far off (when you can ſee the high inner land, within Jochul over the cliffe land) it ſeemeth to be but low.

Inner-land, far within the Land.

Inner-land north and by weſt.



Mount of Jochul

Theſe two figures belong at the BB, one to the other.

Dongarvan.



When you are before Jochull, or thereabouts, (two or three leagues from land) ſo that the high mountaine of Cape Quin be north and by weſt from you, then ſheweth the land thus, the double innerland is very high blew land, you may ſee it in cleare weather twelve or thirteene leagues off.



Corck. Rock. Jochull.

The high land of Dongarvan.

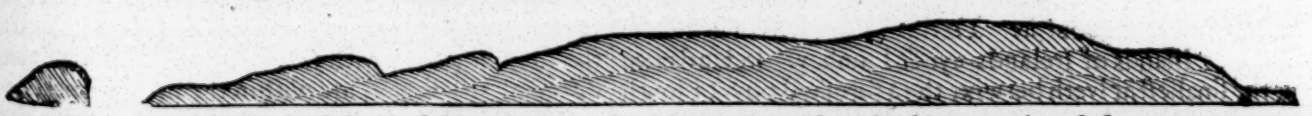


Theſe two figures belong at the CC, one to the other, and is the forme of the land betwixt Corck and Jochull.

Northnorthweſt.



The high land of Dongarvan ſheweth thus, being northnorthweſt from you.



Thus ſheweth the high land of Dongarvan, when the weſtermoſt end of it is northweſt from you.

Sleges Cataquin.

The haven of Waterford.



The Tower of Waterford.

Thus ſheweth it ſelfe the land about Waterford; and to the weſtwards, with the high land of C. Quin; or Cara Quin, when you come towards the land.



Thus ſheweth the Saltees, when they are 3 or 4 leagues weſt and by north from you.

Grenore.



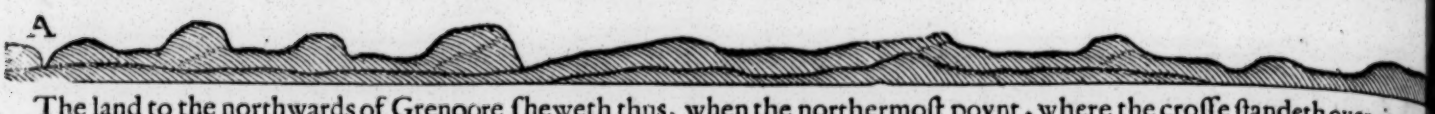
Thus ſheweth the land between the Saltees and the poynt of Grenoort when it is about 2 leagues from you.

Grenore.



The figure following is to bejoyned unto the former, the AA one to the other.

The



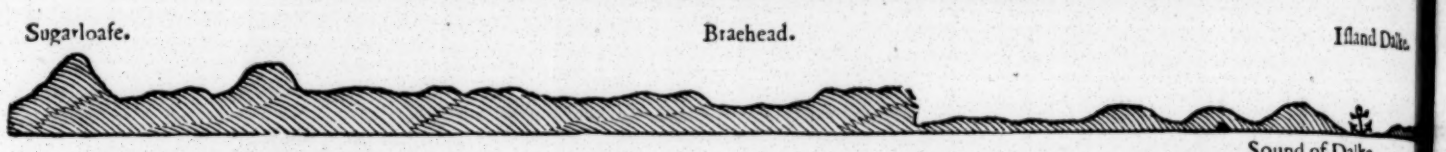
The land to the northwards of Grenoore ſheweth thus, when the northermoſt poynt, where the croſſe ſtandeth over, is north and by weſt about five leagues from you, and Grenoore ſouthweſt and by weſt, ſo farre that a man may but even ſee it from below, and then a man may ſee the Tuskar from the top in the ſouthweſt.



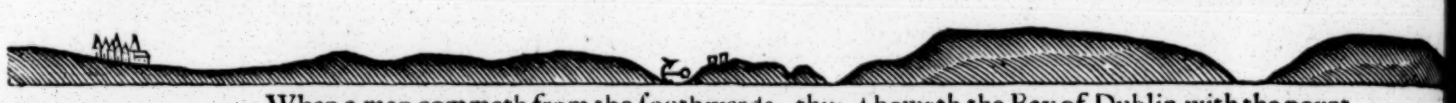
Thus ſheweth the coaſt of Ireland when as Sugarloafe is northweſt, and the poynt of Brahead northweſt and by north about ſeven leagues from you. When as Sugarloafe commeth northweſt and by weſt from you, then may you runne ſo in, over the north grounds through a broad channell of nine and ten fathom deepe.



When the Sugarloafe is thwart from you, it ſheweth with the high land within it, thus.



Thus ſheweth the coaſt of Ireland betwixt the Sugarloafe and the Iſland Dalke, lying at the ſouth poynt of the Bay of Dublin, when a man is about Brachead, one or two leagues from the land,



When a man commeth from the ſouthwards, thus ſheweth the Bay of Dublin with the poynt Houth, and the Iſland Lambey to the northwards of it.

The ſeventh Demonſtration.

Where in is

Delineated the northeaſt Coaſt of Ireland betweene Hedenhoo or Houth, to Hoornhead.

Irelands eye.

THe n. poynt of the Bay of Dublin called Houth, is round about cleane, ſo that a man may anchor round about it. To the northwards of it lie the Iſlands of Irelands-eye & Lambey. Irelands-eye is the ſmalleſt, it lyeth betwixt the a foreſayd poynt Houth and Lambey: At the weſt ſide of it ſtandeth a little Chappel, right againſt it, you may ride. At the ſouth end lyeth of a ſtony riffe which muſt be avoided. Right over againſt that Iſland in the maine land lyeth a haven for ſmall ſhips, at a little town called Malcheall.

Malcheall.

Lambey

Under Lambey you may ride upon the n. ſide for a ſoutherly winde, in 12 and 13 fathom, but for a ſea winde, you muſt ſhift unto the weſt ſide by a Gentlemans houſe, and anchor there, but it is not very good lying there, becauſe alwayes there commeth in a great ſea.

About 6 leagues n. w. and by n. from Lambey, lyeth the haven of Drodagh, betwixt them both (neareſt Lambey) cloſe by the land lie rocks, called the Skires. About 2 miles to the northwards of Lambey lyeth a great rock called Rock a Bill, you may run round about it on both the ſides.

Drodagh.

Drodagh hath a narrow crooked haven, which is not good to come into without a Pilot, or ſome one that is well acquainted with it.

Foure or 5 leagues to the northwards there of lyeth the haven of Dondalk, which is very ſhoale, and little uſed, at low water a man may go over a foot.

Nord and by weſt about 11 leagues from Lambey, ſeven leagues to the northwards of Drodagh, and two leagues from Dondalk, lyeth the haven of Carlingford: the north poynt of that haven is ſome what foule and rocky, but you may goe in about it by your lead: the ſouth poynt is very foule with rocks and ſuncken rocks, which you muſt ſhun, and runne in by the northerne ſhoare: Some ſay that men may runne in through betwixt the rocks and the ſouther poynt with ſmall ſhips, but it is not without danger. When you are within the ſuncken rockes, you muſt runne over to the ſouther ſhoare, and in alongſt by it, untill you come before the town of Carlingford, and anchor there in ſix, ſeven, or eight fathom, ſo ſhallow as you will; you may ſayle in upon the oaſe and ſave a ſhip without anchor or Cables. Green-Caſtle lyeth at the northeaſt ſide of the haven, 2 miles from Carlingford.

Carlingford.

About 7 leagues n. e. from Carlingford, lyeth a poynt called S. Johns poynt: betwixt both about half wayes lyeth the mount of Carlingford, a high Mountain. From S. Johns poynt lyeth of a ledge of rockes, where of you muſt take heed. A great league to the northwards of S. Johns poynt, lyeth Arglas from thence forth to the haven of Strangford it is 3 ſmall leagues.

From the north poynt of the haven of Strangford, lyeth off a foule ledge of Rocks. A little off from the ſouth poynt lyeth a ſuncken rocke, which at half ebbe commeth above water. For to ſayle into this Haven, you muſt leave this ſuncken Rocke on the larboard ſide, and goe to the northwards of it, but muſt take good heed of the foreſayd ledge at the north point. A man may alſo goe in through to the ſouthwards of the foreſayd ſuncken Rocke, betwixt it and the poynt (but to the northwards of it) is the beſt and the broadeſt Channell. Somewhat further in lyeth alſo an other ſuncken Rocke at the northeaſt ſide, that muſt bee left on the ſtarboard ſide in going in. When you come ſo farre as Audleys Caſtle, there

Drodagh

Hadshe Hout

Malhead

Made toren

Skerrs

Roc abul

Yerlands ey

Lambey

Dundalck

N O O R

Carlingfoort

Newry

Narro water

Gren castel

Mosses van Carlingfoort

Z Y D

Dondrom

S. Ians point

S. Ians haven

Ayeslas

Y E R

Strangfort

Strinne eyl.

Lough Cork

Briall

Noord rock

Zuyd rock

Moul van Galive

I Man

S C H O T

D O O S T

V A N

A N D T

L A N D T

Scheeps haven

Hoornhe

Lough Swilly haven

Ramelt

Enes

Derv

Buneraogh

Vuyle sand hav

Robben Eyl.

Boomen ofte Trees

Wit Castel

Rod Castel

De Reed

Mayllions point

Emisthon

Eylandten van Esterhul

Banthaven

Castel

Skerres portruß

Donluze Cast

Kiecktens

Port-Bellerio

Belfast

Knocfergus

Olifliet

Slecht Landt

Hoogh hoeck

Schorre hoeck

Castel

Fairsorlant

C. Pingore

Schuyrs lant

Ranghlesns

De Mayds

Longendal

C. Cantyr

Yley

Surey

Elzee

Dunbriton

Deutsche myelen

Verenighe vande Riviere van Dunbriton aen de weste zyde van Schotlant

Lammelish Lemme ile

Commers

Sdoor

Kilmor

Boom. ofte Trees

there you may anchor or runne in about the point on the larboard ſide, and anchor there under it.

About a league and a halfe to the northwards of Strangford lie the Rockes Southrocke and Northrocke, of them read as followeth.

From Strangford Haven to the Northwards lyeth the coaſt forth n. n. e. one league unto a point, which ſome doe call the point of Arglas, others the point or head of Molines; from thence falleth away the coaſt unto the Bay of Knockfergus northnorthweſt.

By the foreſayd point of Arglas or Cape of Molines, to wit, to the northwards of it, two little miles, lye two great rockes: the ſouthermoſt is called the Southrocke, it lyeth about two mile, to the Southwards of the Northermoſt, called the Northrocke. From the ſouth end of the ſouthrocke lyeth a ledge of rockes at the leaſt two miles off, alſo one from the northeaſt point a great wayes northeaſt off into the ſea. The north rocke is a great plate of rocks, where of many at high water are under water. There goeth alſo from it a foule ledge off unto the land, ſo that a man may hardly ſayle through betwixt the rocks and the maine land, except a man be extraordinary well acquainted. But betwixt the north-rock and the ſouthrock goeth a faire broad Sound through, where men may well turn too and again, and at many places may anchor, it is all over good clean ſandy ground, 6 or 7 and 8 fathom deep.

From the eaſt ſide of the ſouthrocke unto the Iſlands at the eaſt point of the bay of Knockfergus, called Koppen, or Kopland Iſles, the courſe is north northweſt or ſomewhat more northerly, about ſix leagues: for when men ſayle from the eaſt ſide of theſe Iſlands to the ſouthwards, with a ſ. ſ. e. way, they goe farre enough without the north and Southrocks. There betwixt them both lye divers more little Iſlands, rocks, and ſuncken rocks, & ſhoals, for the which men muſt take good heed when they will come neare by the ſhoare.

The Kopland Iſles lye about an Enhliſh mile from the land, they are upon the off ſide to ſeawards, cleane, but from the inner ſide there goeth off ſome ledges and foule ground, in the mid-way there going through it is 5 & ſix fathom deepe, but it is beſt to goe without, except for them that are well acquainted. The n. point of Knockfergus, lyeth diſtant from the Kopland Iſles 3 or 4 leagues n.w. or ſomewhat northerly, for which a ſ. e. courſe from the north poynt towards the foreſayd Iſlands, that goeth farre enough without them.

The bay of Knockfergus is a great broad ſound; about 3 leagues inwards in the Bay w. from Koplands Iſles, is the road before Knockfergus, there is good anchor ground in 5 fathom and a halfe. Somewhat more further out towards the n. poynt alſo on the n. ſide of the bay ſtandeth a Caſtle, called Mouſehils Caſtle, by it is a ſandy bay, where is good anchorage, as well for great ſhips as ſmall, for the n. and the n. w. winds, but a ſouthweſt winde maketh a bad road in theſe places.

A little to the northwards of the north poynt of the bay of Knockfergus, lyeth a little Iſland called Kow, from thence lyeth the Coaſt of Ireland forth nordnorthweſt, about 9 or 10 leagues unto the Iſlands of Raghleens. Betwixt them both lye the 9 Maydes one great league without the land, and two great leagues to the northwards of the bay of Knockfergus, they are great rocks, that lye but little above water, or low rocky little Iſlands, and a multitude of rocks under water about them, that lye off ſoo far to the northnortheaſt, that men cannot come neare them within 5 or ſix Engliſh miles. There goe ſom Creekes through the foule grounds, where men (for need) might ſayle through, but it is no wiſdome to go about it, when there is no need, and that men can do better. Not very long ſince, there came a man (by night unacquainted) there in, and runne through onely upon the ſight of the beaches of the water, and got through without any hurt, but not without great feare and danger. He that commeth of from the faire Forland, muſt (at leaſt) goe South eaſt and by eaſt, for to runne alongſt cleare of theſe foule grounds. From the weſtſide alſo lieth off a little tayle of a ledge of rockes towards the land. Further, it is there cleane, that men may ſayle through there within, but men muſt not come nearer the Maydes, then about halfe channell betwixt them and the maine, but the maine land ſo neare as they will, which is both cleane and cleare, with many Bayes, where men may every where anchor, yet here and there lye ſome rocks, but they are all above water: There is nothing that can hurt you, but men may eaſily ſee it.

A great league to the northwards of the nort poynt of the Bay of Cnockfergus, and a halfe league ſouthſouthweſt from the Mayds, lyeth a haven called Old-fliet. For to know it when men come from the nordwards, they ſhall ſee two flat little towers, the one ſomewhat higher then the other like as if men ſaw a ſhip with maine ſayle & foreſayle, without toppe or toppe-ſayles: theſe ſtand upon the northſide of the Bay. Oldfliet.

At the ſouth poynt lyeth a ſmall round little Iſland or rock called the Knee, a ſpeciall marke for to know this Bay; men run in there amidſt the channell. But when you come from the ſouthwards, and get ſight of the little Iſland Knee, then run in cloſe about it. Iſland Knee.

From Old-fliet to the northwards unto faire Forland, the coaſt is very cleane, that you may ſayle cloſe alongſt by it, boldly without any feare, except you runne farre off from land, without the foreſayd Maydes towards the Scottiſh coaſt.

Faire Hid, or faire Forland is the outermoſt northeaſt point of the maine land of Ireland, and lyeth a little to the ſouthwards of the Iſland Rachleens, ſo that this point and the eaſt point of Rachleens lye neare about ſouth and north one from the other. Faire Forland.

At Rachleens, or faire Forland the northeaſt point of Ireland, come Scotland & Ireland neareſt one to the other the Rachleens is an Iſland that men may ſayle round about, either to the northwards or to the ſouthwards, as they will according as is happeneth beſt convenient with winde and tyde. At the ſouthweſt ſide is a faire by, where is good lying almoſt for all windes. When men come from weſt it ſemeth to the ſouthwards of the Rachleens to bee cloſe without any opening, becauſe the eaſtermoſt point of Ireland faire Forland, lyeth ſomewhat further out, behinde the Rachleens, but when they come nearer betwixt them, ſheweth it ſelfe open by little and little. On both ſides are the ſhoares flat and cleane, ſo that men may anchor there where you wil, either by the coaſt of the maine land of Ireland, in 8 or 9 fathom, or in the bay unter the Iſland in cleane ſandy ground. Over againſt the Rachleens, cloſe by the maine land, lyeth another little high Iſland, called the Lambs or Sheeps Iſland, to the ſouthwardes of it betwixt it and the main, men may not ſayle there about it, but betwixt it & the Iſland Rachleen it is broad enough. Lambs Iſland.

From the Rachleens unto the Skires Portruſh, the courſe is w. ſ. w. diſtant 7 leagues. About 2 leagues to the eaſtwards off it, in the maine land, lyeth Porto Belletrie, a bad roade for great ſhips, the ground is there fowle and ſharpe.

Betwixt Porto Belletrie and Skires Portruſh, neereſt unto Skires Portruſh, lye the Chickens, theſe are ſuncken rockes, which may be ſayled about on both ſides, for to come to anchor under Skires Portruſh. Chickens.

The Skires Portruſh is a rocky Iſland, it hath on the ſouth ſide a fayre bay, where you may lye in ſixe and ſeven fathom, cleane & ſandy ground land lockt for all winds, except for the eaſtnortheaſt winde, which bloweth alongſt the ſhoare there open in. For to come under this Iſland from the eaſt, you muſt goe cloſe alongſt by the ſhoare off the maine land, for to ſhun theſe foreſayd ſuncken rockes the Chickens. It is there all over cleane and cleare: or els if you were minded to goe without, or to the ſouthwards off the Chickens, for to come under the Iſland, you muſt ſhun the eaſt point Skires Portruſh

of the Iſland, becauſe of a ſuncken rocke that lyeth a little off from the eaſt poynt of the Iſland. At the northweſt ſide of this bay is alſo a ſmall narrow channell, where you may ſayle through.

Bant-haven. A little to the weſtwards of Skires Portruſh lyeth the Bant-haven, there alongſt you may ſayle up unto the new Towne Colran, it is a bad channell to come in, as well by reaſon of the ſtrong freſhoale that commeth out, as alſo becauſe it is very ſhoale with ſhippes that draw 8 foote water, you muſt have at leaſt 3 quarters of the flood before you can goe in.

Longh-foyle. Three leagues northweſt and by weſt from Bant-haven, or weſt and by north from Skires Portruſh, lyeth the haven of Loughfoile, before it lyeth a great plate of ſand called the Touns, which lyeth from the weſt poynt of the haven a great wayes to the northwardes of from the ſhoare, when the winde is out of the ſea, it breaketh very much upon it, with ſmall ſhips that draw little water, men may ſayle into Loughfoile-haven at high water to the ſouthwardes of the Touns, betwixt the Touns and the ſouther poynt, called Magillions poynt; but it is there very uneven, and at full ſea there commeth no more then eight foote water, but alongſt to the weſtwards of the Touns, it is very deepe, men may ſound about the Touns on the off ſide in foure fathom.

For to finde the Channell that lyeth into the weſtwardes off the Touns, (comming from the eaſt, or alongſt by the Touns) you muſt looke out for a little ſandy Bay, that lyeth on the weſt ſide, even within the north-poynt of the river under the high land; bring it ſoo, that you may ſee it open of the foreſayd north-poynt, and ſayle in there upon, untill you come by the land, and then runne in alongſt by it ſouthweſt untill you come right againſt Greencaſtle. If you come from the weſt or the north, you may boldly without feare runne alongſt the ſhoare, & about the poynt upon your lead, without comming neere the towne, you may ſee any thing that might doe you hurt, comming by Greencaſtle, there may you anchor, ſoo that you may ſee Withcaſtle without the poynt of Green-caſtle, there you may lye within the Towns, ſheltred for windes out of the ſea.

Road in Longh-foyle. For to ſayle up from Green-Caſtle, you muſt runne up alongſt by the weſt ſhoare by your lead, and ſhunne the little ſandes that lye here and there alongſt that ſide, until you come paſt With-caſtle, right againſt the three trees, there is the ordinarie road.

Betwixt Green-caſtle and With-caſtle neereſt unto Green-caſtle goeth a Creecke or Slencke through the grounds, unto the eaſterne ſhoare, which is as deepe or deeper then the right fareway unto With-caſtle. When men come off from Green-caſtle, they muſt take good heed not to goe farre off from the weſterne ſhoare, leſt they fall into that Creecke.

How men ſhall ſayle from the foreſayd roade forth up unto the Towne Derry, they may perceive or marke by the card.

Iſlands Eneſterhull. From Lough-foile-haven unto the Iſlands Eneſterhul (by ſome called Monſterhul) the courſe is northweſt foure or five leagues, theſe are ſmall black Iſlands or rockes, not very high above water, and lye a little off the northermoſt point of Ireland, called Eniſtom, a high plaine land, and very good to knowne for him that hath once ſeen it. Betwixt the Iſlands and the poynt men may ſayle through, but not without great danger for them that are not very well acquainted with it, becauſe off much fowle ground and ſhoals that lye betwixt them both. Under the foreſayd point Eniſton, on the weſts ſide, men may anchor for eaſterly windes, or els to ſtoppe the tyde.

Lough-Swilly. From the Iſlands Eneſterhull unto Lough-Swilly, of ſome called Lockſillie, the courſe is ſouthweſt 5 leagues, that is a faire haven. For to ſayle in there: men muſt ſchunne the weſt ſide, and goe in alongſt by the eaſterne ſhoare: The land about Lough-Swilly is the higheſt land of the whole north coaſt of Ireland, and thereby it is alſo very good to know, for thoſe that (comming out of the north) do fall with the lands thereabouts.

Foure or five leagues weſtſouthweſt, or ſomwhat weſterly lyeth a large broad-haven, called Sheepeſhaven, but it is at ſome places foule ground, within it men may lye landlockt for al winds. The weſt point lyeth out, called Hornehead, or Cape de Horne, upon it is a hill with two hommockes in faſhion like two hornes and there after the poynt is named.

At the weſt ſide of this point, men may ride and anchor within the rockes for eaſterly windes. Betwixt Lough-Swilly & Sheepſhaven lyeth alſo a Bay, where men may anchor, but the ground is not very cleane, and right againſt it in the offing, halfe a league from the land, lyeth a ledge of rockes, which at high water are under, and at low water lye above water, may (for need) run through betwixt it and the land, but without it is beſt and ſureſt.

The Coaſt of Scotland.

The haven or ſound of Loughrean or Loockreen in Scotland by the point of Galloway, lieth diſtant from Faire Forland the n. e. point of Ireland, e. ſ. e. about eleven leagues, but the point called Cantir, lyeth diſtant from Loockreen n. w. & ſ. e. 9 leagues, there betwixt them both goeth up a great broad ſound northeaſt in, called Dunbritain Firth, through which men ſaile up unto Glaſkow in Scotland.

The ſound of Loockreen you may ſayl in, and a good wayes you may turn in to and againe for to anchor there within for weſterly winde, if you doe come no neere the Gores on either ſide then in foure fathom, you can take no hurt: You may anchor ſomewhat in, by the ſecond high point on the eaſt ſhoare in tenne or 11 fathom.

About ſeven leagues to the northwards of the point of Galloway in the foreſayd great ſound, lyeth a high ſharpe Iſland, cleane round about of faſhion al moſt like unto a pook of Hay, called Ailza, or Elzee, there you may boldly ſayle round about, it is there round about it, and cloſe by it 18 fathom deepe.

From Elzee northwards ſixe leagues lyeth alſo another little Iſland, cloſe by the eaſt ſide of the great Iſland Arren, called Lamblaſh, or Lamb-Iſle, cleane alſo round about, there you may ſayle round about it, and anchor under it for all winds in ten, twelve, or thirteene fathom, to wit, within it, betwixt the Iſland & the great Iſland of Arren.

North and by eaſt and northnortheaſt two great leagues from Lamb-Iſle, lyeth an Iſland by the point of the maine land called Commer-Iſle; on the eaſt ſide of it betwixt the Iſland and the maine land, you may ſaile through into a faire bay, where men are landlockt for al winds, & from thence you may ſayle forth unto Dunbrittaine, or into the river Glaskow. The foreſayd Iſland Commer-Iſle lyeth from the Iſland Elzee, about north & by eaſt. For knowledge of this Iſland, when men come of from Elzee, or from the ſouthwardes towardes this Iſland, men ſhall ſee a great caſtle on the eaſt ſide of the maine about a great league to the ſouthwardes of Commer-Iſle, and alſo a little caſtle, a good wayes to the northwardes, cloſe upon the water ſide, that ſtandeth right to the ſouthwardes of the Iſland Commers-Iſle, or the ſound that lyeth there unto the eaſtwards of it, upon the ſame Iſland ſtandeth alſoo a little caſtle cloſe to the water ſide. Runne in betwixt the Iſland and the maine land, about north northeaſt in, and leave the Iſland a great cables length on the larboard ſide, and the main land on the ſtarboard ſide you muſt ſhun more, becauſe of a great ledge that lyeth off from it towardes the Iſland, and ſomewhat more northerly. Having gotten cleare of the end of this ledge runne

runne then right towards the maine land into the bay, or ſound, and anchor there in ten fathom, right againſt a ſtone houſe with an ore hard thereby, it ſhall be then a ſtearne your ſhip about 7 fathom deepe, and there moore your ſhip well.

For to ſayle out of the Sound of Commer-Iſle towardes Glaskow, goe firſt northweſt an by north unto by the poynt of the Iſlant, that is, to the weſtwards of you, and then north, alongſt by it, then by little and little more eaſterley, at length northeaſt, runne ſoo all alongſt by the eaſterland, without leaving of it, you ſhall not faile to come to the ſound of Glaskow. Comming by the poynt runne cloſe about by it firſt eaſtnortheaſt, eaſt, and eaſt and by ſouth, at leaſt eaſtſoutheaſt, all alongſt by the ſoutherne ſhoare, you ſhall then ſee a caſtle ſomewhat a head upon the ſouther-land, cloſe upon the water ſide, with two tuffes of trees upon the high land right eaſt ſoutheaſt from the caſtle; keepe that foreſayd caſtle between the tuffes of trees, and ſayle in there upon, ſo ſhall you run right, alongſt the deepeſt of the Creeke, there is at high water five fathom, and at low water three fathom. From the north ſhoare lyeth off great ſhoale, which lyeth over the Sound more then two third parts from the norther ſhoare; towards the ſouth ſhoare it falleth dry at the loweſt water, therefore men muſt ſhun the norther ſhoare, & runne alongſt by the ſouther ſhoare. There ſtandeth a white caſtle upon the ſouth ſhoare, right againſt that begin the foreſayd ſands. In the Creek it is ſoft ground, but towards the ſand the ground is hard, therefore when you feele by your lead that it is ſomewhat hard, that is a token that you come too neere the ſhoals, ſayle then ſo forth upwards to Dunbrittaine, there lyeth a little Iſland on the ſouth ſhoare, which is at low water faſt to the Iſland when you ſhall be paſt it about two Cables length, then anchor there in five at high water.

A ſouth and by weſt moone maketh there the higheſt water.

Of the Tydes and Courſes, of the ſtreames.

At Dublin a ſoutheaſt and northweſt moon.

The flood commeth here from the ſouthwardes, and alſo from the northwardes, about the north part of Ireland, and meete one another about right againſt Carlingford, where they ſtopp one the other. The ebbe contrarie wiſe falleth (to the northwards off Carlingford) to the northwards, and (to the ſouthwards of Carlingford) to the ſouthwardes.

On the coaſt of Ireland from the Southrock and Northrocke unto the Copland Iſles, a ſouthſoutheaſt and northnorthweſt moone maketh full ſea. But to the northwardes of it a ſoutheaſt moone.

On the Iſland off the Ragleens & Skires Portruſh an eaſtſoutheaſt and weſtnorthweſt moone.

The flood commeth there out of the weſt, and falleth through betwixt Ireland and Scotland: from the cape Cantir to the mull of Galloway, ſouthſoutheaſt, unto the Iſland Man, there floods out of the ſouth and north doe meet one to the other. The ebbe contrarie wiſe falleth alongſt the coaſt northnorthweſt betwixt Ireland and Scotland to the weſtwards unto the Ocean ſea.

At Engliſtoun in the Sound of Glaskow, a ſ. weſt moone maketh full ſea.

In the haven of Loughfoile an eaſt and by ſ. and weſt and by north Moone maketh full ſea. The flood commeth there out of the weſt and northweſt.

At the Iſlands Eneſterhull, and in Sheepe haven an eaſt and weſt Moone maketh full ſea. The flood commeth there out of the weſt.

Courſes & Diſtances.

From the Sound of Dalke to the poynt Houth northnortheaſt two leagues and a halfe.

That courſe runneth without the poynt Houth, Irelands eye, Lambey, and Rock a Bill.

From Lambey to Drodagh northweſt and by north 6 leagues.

From Lambey to Carlingford north and by weſt, 11 leagues.

From Carlingford to S. Johns poynt northeaſt 7 leagues.

From S. Johns poynt to Strangford northeaſt and by north 4 leagues.

From Lamby to the South-rocke northnortheaſt, 22 leag.

From the northrock & Southrock unto the Copland Iſles n. n. weſt 6 leagues.

From the Copland Iſles to the north-poynt off Knockfergus northweſt, ſomewhat northerly 3 or 4 leagues.

One league to the northwards lyeth the haven of Oldefliet.

From Oldefliet to the Raghleens within the Maydes, through northnorthweſt 7 leagues.

From the Ragleens to Skires Portruſh weſtſouthweſt, 6 or 7 leagues.

From Loughfoyle to the Iſlands Eneſterhull northweſt, 4 or 5 leagues.

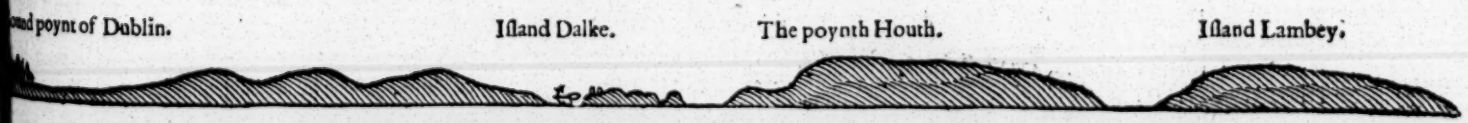
From Eneſterhull to Lough Swilly ſouthweſt, 5 leagues.

From Lough Swilly to Sheepe haven w. ſ. w. weſterly, 4 or 5 leagues.

Heights.

The Iſlands of Eneſterhull at the northermoſt poynt of Ireland lyeth in 55 degrees an 10 or 12 minutes.

How theſe Lands doe ſhew themſelves at Sea.



When a man commeth from the ſouthwards, thus ſheweth the Bay of Dublin, with the poynt Houth, and the Iſland Lambey to the northwards of it.



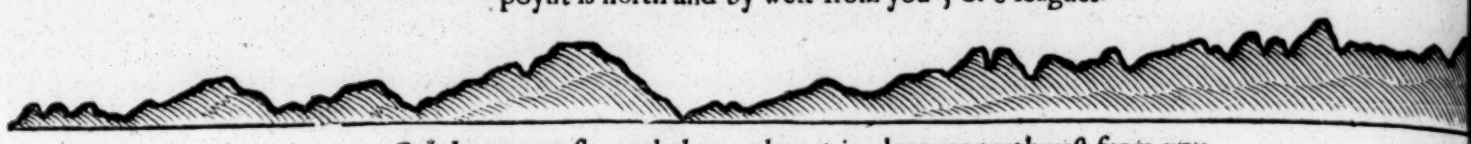
The Iſland Lambey ſheweth it ſelve thus, when it is from you northweſt and by north one league off.



Thus ſheweth the land a little to the ſouthwards of Carlingford, when this high poynt is northweſt from you about five leagues. He that wil goe into Carlingford, muſt goe in cloſe by the ſhoare.



The land to the northwards of Carlingford ſheweth it ſelfe thus, when the northermoſt poynt is north and by weſt from you 5 or 6 leagues.



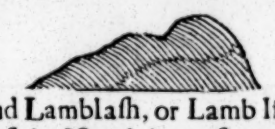
S. Johns poynt ſheweth thus, when it is 4 leagues northweſt from you.



Thus ſheweth the poynt of Scotland over againſt the Bay Knockfergus, called the mull of Galloway, when men ſayle alongſt by 1 league without the land, & that the northermoſt & the low poynt is n. e. from you, & the ſouthermoſt ſ. e. from you. Under the north poynt is on both ſides good anchoring in 10 or 12 fathom, for ſoutherly and eaſterly windes.



The Iſland Elzee in the great bay of Dunbrittain ſheweth it ſelfe thus.



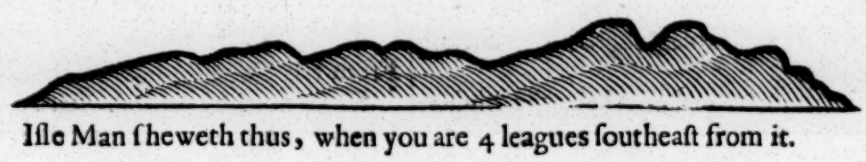
The Iſland Lamblaſh, or Lamb Iſle on the e. ſide of the Iſland Arren ſheweth it ſelf thus, being 2 leagues off from it.



The Iſland Commer Iſle lying before the ſound of Dunbrittaine, or Glaskow ſheweth it ſelfe thus.



Thus ſheweth Cape Cantyr, when it is from you northweſt and by weſt about 7 or 8 leagues.



Iſle Man ſheweth thus, when you are 4 leagues ſoutheaſt from it.

The eighth Demonſtration.

Where in

Are ſhewed the northweſt Coaſts of Ireland, from Hoornhead to Slynehead.

WEſtnorthweſt about two leagues from C. de Horne or Hornhead, lyeth the Iſland Tore, to the ſouthwards of it lye three Iſlands, called the Iſlands Baleneſſe, men may ſayle through to the ſouthwards of Tore Iſland, to wit, betwixt Iſle Tore, and the Iſland of Baleneſſe, & alſo within the rocks.

Tore Iſle.
Iſlands Baleneſſe.

From the Iſland Tore to the Iſles of Aran, the courſe is ſ. w. 6 or 7 leagues, betwixt them both, not far from Iſland Aran, lye ſome high rockes, called the Staggs of Aran. Alongſt all that coaſt betwixt Horne-head & the Iſlands of Aran, is good anchor ground all over.

Iſlands of Aran.
Staggs of Aran.

For to come to anchor under the Iſlands of Aran, comming out of the north, runne alongſt by that great Iſland, leaving it on the ſtarboard ſide, untill you be within it: goe then towards the ſouthweſt, & anchor on the ſoutheaſt ſide, there is the roade. Men may alſo anchor in the Iſlands over againſt it towards the maine, in divers places, and lye landlockt for all windes.

Upon the northweſt poynt of Ireland, a good wayes landwards in, lyeth a high hill, of faſhion al moſt like a Sugarloafe, which is ſeen in cleare weather before any other land, at leaſt nine leagues at ſea: When that hill lyeth eaſt and by ſouth from you, then ſayle in right with it, you ſhall not miſſe to fall right with the great Iſland Aran.

Cape de Telling.
Telling-head.

From the Iſland Aran unto the poynt Telling-head, called by the Iriſh cape de Telling, or Tellin; the courſe is ſouthſouthweſt eight or nine leagues. Three or foure leagues to the northwards of C. de Telling lyeth an Iſland, called Raigleene borne.

At the Cape Telling lyeth a little Iſland, halfe a league from land, men may ſayle through betwixt the Iſland and the Cape, boldly without any danger.

To the ſouthward of C. de Telling, to wit, betwixt the Cape and the Stagges of Broadhaven, lyeth the land with a great bay, where in lye many good Havens, as Tillinghaven, Kilbegh, Dungall, Ballaſhaven, Slego, Endrigo and Moye.

From the Cape of Telling unto Kilbeg lyeth the coaſt e. ſ. e. about foure leagues: betwixt both, about one league and a halfe from the Cape, lyeth Telling-haven, a round bay with good ſandy ground, there may about 30 ſhips lye, weſt and ſouthweſt windes doe blowe there open in, for all other windes men are there landlockt.

Kilbegh, or Kalebegh is alſo a faire round bay, but it is very narrow at the comming in of it: When men are a little from the ſhoare; it ſeemeth to bee all cloſe without any opening. About halfe a league to the weſtwards of this bay, a quarter of a league from the land, lyeth a little Iſland, which is very low & plaine at both ends going playne downe, that is a good mark to know this foreſayd bay, men may alſoo ſayle through betwixt the Iſland & the mayne, if they will. When you come out of the weſt, and



De Noordwest-zyde
van

YERSANDT

Beginnende van Capo de Hoorn: tot aen Schynes. of Slynehead.

t Amsterdam.

By Iacob Theunisz op't water inde Loots-man.

Dungal
Bulstoun
Dungalhaven
Balashaven
Bonaroes
Melchaven
Erverbaye
S. Ians point
Castel Monsuyn
Kilbeg
Scheeps haven
Hoornhoek
C. Hoorn
Locrns
Tellinhaven
Tellinghed
Balenesse Eylandt
I. Torre
Klady
Castel
C. Tellin
Staecx van Aran
I. Aran
I. Raigl. hoorne

Duytsche mylen 15 in een graet-

Spaensche mylen 17½ in een graet-

Eng. en Fra. mylen 20 in een graet-

C O N N A V G H

Indrigo

Bores

Bresel

Backon

Schyres

Schynehead

Move oste

Rafrain

Oosterschelandt

Brod haven

Stukes van Brod haven

Enckkie

Blackrock

Horsshoost

Clere

Backe

Atkelland

16

Mack-
fwyns-
toy.

S. John
poyns.

Dan-
galbay-
en.

Moy.

Skaggs
of Broad
haven.

Black-
rock.

and are paſſed that Iſland, then go neere the ſhoare, which is clean & cleare, & go freely cloſe a board of it, untill you ſhall ſee this bay open, and then ſayle boldly in, without any feare, betwixt the two ſhoares there is nothing (neither in the going in, neither within in the bay) that can hurt you, if you doe not ſayle upon the ſhoare. When you ſhall be come in anchor where you pleaſe in 5, 6, 7, or 8 fathom, ſo ſhoale or deepe as you will, on the north ſide within the bay ſtands a little Caſtle.

Mackſwyns bay. About a little league to the eaſtwards lyeth another Bay within ſome rocks, called Mackſwyns bay; but is not to goe in, except men be very wel acquainted, they muſt go betwixt the rocks in untill they bee gotten in, there they may ſave a ſhip without cable or anchor.

S. Johns poynt. A great league to the ſouthwards of Kilbegh, lyeth a long lying out poynt, called S. Johns poynt right weſt from that poynt, a quarter, or a little halfe league, lieth a great Rock under water, whereupon the ſea breaketh with great noyſe. Betwixt that rock, and the poynt of S. Johns point men may ſayle boldly through, it is there cleane and cleare.

Dungallhaven. About 2 great leagues to the eaſtwardes of that foreſayd point S. Johns poynt, lyeth the Haven of Dungall, into the ſouthwards. For to ſayle in there, you muſt firſt ſhun the eaſter ſhoare, which it very foule with dry plates and Rocks. When you are come right againſt a little caſtle that ſtandeth on the north ſide, right againſt it lieth off a little riffe from the ſhoare, that you muſt avoyd alſo. And when you are come about the poynt of that riffe, you muſt goe over again to the northſide, for the ſouth ſide is there flat and ſhoale. Betwixt Saint Johns poynt and Dungallhaven alongſt the coaſt is all over good anchor ground.

Moy. The Haven of Moy hath at the comming in a broad bay, in it lye ſome rockes. For to ſayle in there, you muſt leave them all on the weſt ſide, that is, on the ſtarboard ſide, & run towards a little ſandy Iſland, that hath at the north ende a little riffe, you muſt goe into the weſtwards of it, and leave that Iſland on the larboard ſide. Even within that foreſayd Iſland lieth another little round green Iſland, that muſt bee left on the ſtarboard ſide, ſo ſoon as you ſhall be right againſt it, you muſt let fall your anchor, for a little further it is ſhoale and hard ſandy ground, the greateſt anchor muſt be brought towards that foreſayd long ſmall Iſland, & the ſmall anchor towards the little greene Iſland, it falleth there at low water allwayes dry. If you will goe from thence befoore the Town Moy, you muſt light your ſhip to 8 foot, for to come through betwixt te long ſmall Iſland, and the ſ. grounds, there is at high water with an ordinary tide no more then 9 foot water; being come over the nek, you ſhall come into a poole befoore the towne Moy, there you may ride a float at low water. In the road againſt the Iſland it is 15 or 16 foot deep.

Stagges of Broad haven. The Stagges of Broad-haven are Rocks that lye to the northwards a league or a league & a halfe a ſeaboard of the poynt, to the northwards of Broad-haven.

Broad-haven lyeth in ſ. and by weſt, in the ſound lye 3 or 4 rocks, theſe muſt be left on the larboard ſide, & run in there alongſt to the weſtwards, untill you come within the haven.

Black-rock. A great league to the weſtwards of Broad-haven lyeth an out poynt ſouthweſt from the Staggs. From thence lyeth the coaſt alongſt to Black-rock ſ. ſ. w. Black-rock is a great high black-rock with more other rocks by it, and lyeth from the foreſayd poynt ſ. ſ. w. diſtant about 6 leag. & about a league northw. from the out poynt Acklehead.

Acklehead. Acklehead is a very high poynt, and ſheweth it ſelfe a farr off like an Iſland with a great Saddle, thereby it is good to be knowne. Within this poynt lye alſo 2 exceeding high hills which together with the point men ſhall ſee firſt at ſea before any other part of the land, ſo that the poynt doth ſhew it ſelfe firſt like three Iſlans. Men may ſayle through betwixt Acklehead and Blackrock; comming from the ſouthwardes men doe leave Acklehead on ſtarboard, and Blackrock (with the rocks thereby a ſeaboard) on larboard, & the courſe lyeth through betwixt them both n. n. e. & n. by eaſt unto the poynt of Broadhaven, it is there large and wide.

To the n. wards & to the e. wards of Acklehead, lye divers havens, where it is good riding, a little to the n. wards of Acklehead, you may run into the w. wards, betwixt the low land to the n. wards on the larboard ſide; & the high land of Acklehead on the ſtarboard ſide a great wayes in, & anchor in 7 & 8 fathom, landlockt for all windes & from thence may come out againe to the n. wards, or elſe may come out into the ſea again to the ſ. wards round about the land of Acklehead.

Slynſhead. Twelve-pence. From Acklehead to Slynſhead (by the ſea faring men called Twelve-pence: becauſe the land doth ſhewt it ſelfe in 12 round hommocks) the courſe is ſouth, what eaſterly 11 leagues, betwixt them both lye three Iſlands before a great bay, the northermoſt or next to Acklehead is called Cleere, this hath a high hill on the n. end that is very ſteepe, and at the ſouth end it is flat going downe. The ſecond or middlemoſt is called Boche, within it is a road for thoſe that are bound to the ſouthwards, where men may anchor in foure fathom: the ſouthermoſt is called the Horſe.

Patriks-hil. Betwixt Acklehead & Twelve-pence lyeth within in the land, a very high hill like a Sugerlorfe, called S. Patricks-hil, or by ſome Don Patrix, that may be ſeen far at ſea & ſhall be ſeene long, altering it ſelfe by the cliffe land, as men ſayle along the coaſt to the northwards, or to the ſouthwards.

From Sleynſhead, or Twelve-pence unto the ſound of S. Gregories, before the bay of Galloway, the courſe is ſ. e. nine leagues.

Of the Tydes and Courſes of the Streames.

In all theſe foreſayd Havens and roads an eaſt northeaſt and weſtſouthweſt Moone maketh full ſea. In the offing a ſeaboard a ſouthweſt and northeaſt Moone.

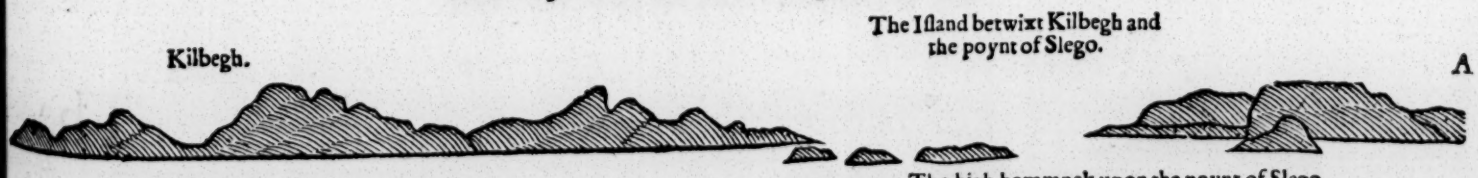
Courſes & Diſtances.

From C. de Horne, or Hornhead, to the Iſland Tore w. n. weſt — 2 leagues.
From the Iſland Tore to the Iſles of Aran ſouthweſt — 8 leagues.
From the Iſlands of Aran unto Tellinghead ſouthſouthweſt, — 8 or 9 leagues.
From C. de Tellin or Tellinghead to Kilbegh eaſtſouthеaſt — 4 leagues.
From C. de Tellin to the Stagges of Broad-haven ſouthweſt, — 11 leagues.
From the poynt of Broad-haven to Black-rocke ſouthſouthweſt — 6 leagues.
From Black-rock to Acklehead ſoutheaſt — 1 league.
From Acklehead to Slynſhead ſ. e. & by e. — 10 leagues.
From Blackrock to Rokoll n. and by w. — 60 leagues.

Heights.

The River of Galloway lyeth in — 52 degrees 54 minut.

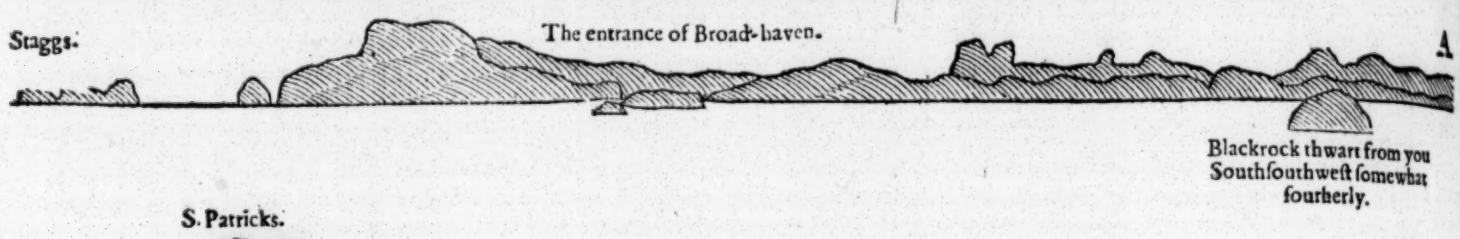
How theſe lands doe ſhew themſelves at Sea.



Theſe two figures belong at the A A, one to the other, and ſhew the forme or likeneſſe of the land betwixt Kilbegh & Slego.



Thus ſheweth the Land to the eaſtwards of the Staggs of Broad-haven towards Moye & Slego.





The land to the northwards of Blackrock, as farre as the Stagges, and then to the ſouthwards alongſt paſt S. Patricks hill, ſheweth, as in theſe two figures is deſcribed, when men are thwart of Blackrock.



Thus ſheweth the land betwixt Blackrock and Acklehead, when it is eaſt from you, when you come more to the northwards, theſe high hils doe alter alſo wider one out of the other.

Blackrock.

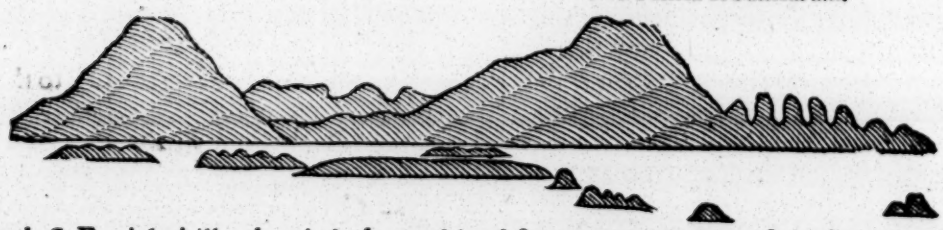


The poynt of Blackrock ſheweth thus, when you are to the northwards of it.



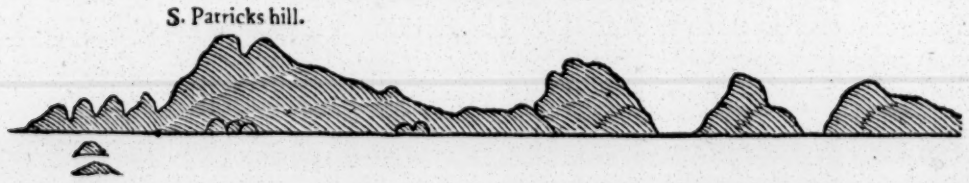
Thus ſheweth the poynt of Blackrock, when men are to the ſouthwards of it, then they ſee a ſharpe rocke over the poynt.

Don Patrick or Patricks hill.



Thus ſheweth S. Patricks hill, when it is ſ. e. and by ſ. from you, being not farre from Land, ad the n. ſide of it lye ſome little Iſlands and rocks.

S. Patricks hill.



Thus ſheweth the ſecond poynt to the northwards of Blackrock, lying in the height of 54 degrees and a halfe.

The

Galloway

Hamn
Isle

Blached

Clara

Borram

Lemyck

Port Nissady

Kronskie

S. Kirdis

Boomen

Smalle Sond

Daenshoost

Ihskamer

Y E

Carohesse

Slynched al
Slenhoost

Bartugras

Seatrix

Cam Semen

Lupris hooft

I Pysgos
al Beeren

C. Sibilla

Sond van Blasques

Horses

Rocken

De weſt cuſten
van

YERLANDT,

Beginnende van Corckbeg tot aen Slynhooft
't Amſterdam.

By Iacob Theuniſz. op't water inde
Lootsman.

R L A N D T.

Corck

Kynſael

Oldchedſal:
Oldhooft

Glendore

Roſſe

Somrack

Caſtelhaven

Abaſtroa

Kilbea

Stakes

Langerſhaven

Balgobben

Abby

Roſbren

Renaſer

Scholhaven

Baltemoer
Il. Sherke

Limcon

Long Iland

C. de Clare

Cannor

Donckery

Clir als een zeyl

Kil mare

Sirlyvant more

Sermey

Bantrey

Salmon Ly:

Schaps hid

Arie Caſtelen hid

Eyſtine

Crookhaven

Sond van Dorſes

Dorſes

C. Dorſes

Kalf

Koe

Bul

Clein Schyllingh

Graut Schyllingh

The ninth Demonſtration:

Where in is

Contained the Deſcription of the weſt Coaſt or poynt of Ireland from Slynehead to Corck Bay.

FRom Slynehead untill you come before the Bay or great inlett of Galloway, the courſe is ſoutheaſt nine leagues, where lye three great Iſlands, called the Iſlands of Aron, the ſouthermoſt is greateſt, the channell betwixt the northermoſt and the middlemoſt, is called the ſound of S. Gregory, which is on both ſides cleane without any foule ground, ſo that men may turne in too & againe from the one Iſland to the other, without feare of taking any hurt. The north ſide of the middlemoſt Iſland is nothingh elſe but faire ſteep rocks: when you are come within the Iſlands, you muſt ſhun the middlemoſt, becauſe of a little riffe that lyeth off it.

Iſlands of Aran. S. Gregories ſound.

Men may alſo ſayle to the northwards of the northermoſt Iſland, into the great Bay of Galloway, likewiſe alſo to the ſouthwards of the ſouthermoſt, to wit, through betwixt the ſouthermoſt Iſland, and the maine land, but that Iſland is foule at the ſouth end of it, and therefore you muſt runne in alongſt cloſe by the ſouth ſhoare, or at leaſt leave two third parts of the channell towards the Iſlands, as well in ſayling in as ſayling out.

Somewhat within the Iſlands, on the ſouth ſide lieth a high black point, called Blackhead, you muſt beare into it, and alongſt by it in, whether you come in at the ſouther channell, or through S. Gregories ſound, or elſe in at the norther channell, for the north ſide of the bay is foule and rocky. About 2 great leagues n. e. from Black-head, lieth an Iſland, called Motton-Ile, under it on the eaſt ſide you muſt anchor in poole, in 5 or 6 fathom.

Black-head.

You cannot ſayle further up to the northwards into the River with ſhippes, but onely with boats. A northeaſt and ſouthweſt moone maketh there full ſea, and it floweth there ſo ſtrong in the baye, that the rockes which at low water are above water, at high water you may ſayle over them; at low water of ſpring-tydes, the grounds fall dry w. ſ. weſt from Motton-Ile, a great league & a halfe off, moſt all rocky and foule ground.

Motton-Ile.

When you ſayle from Blackheaſt towards Motton-Iſland, you muſt take heed of the north ſide, and edge over moſt towards the ſouth ſide. About halfe wayes betwixt them both, lyeth a plate or ledge neareſt the north ſide, you muſt goe in alongſt by it to the ſouthwards.

From the Bay of Galloway to Lupiſhead at the north point of the Haven of Limbrick, the courſe is ſ. ſ. weſt, 11 or 12 leagues. About halfe wayes betwixt them both, lyeth a little Iſland that is foule round about with ledges of Rocks that lye of to ſeawards a league and a halfe a ſeaboard the land.

Lupiſhead.

To the ſouthwards of the point Lupiſhead goeth in the Haven of Limbrick. Foure leagues eaſt northeaſt within the foreſayd point, lyeth an Iſland, called Seatrick, you muſt ſayle alongſt without it to the ſouthwards, & leave it on the larboard ſide in ſayling up. At the eaſt ſide of that Iſland is a good road. About halfe wayes betwixt that Iſland and Lupiſhead, lyeth a ſhoale which you muſt ſhun, and ſayle alongſt to the ſouthwards of it. From the Iſland Seatrick unto Lumbrick, are more 12 or 13 leagues, firſt from thence to the Iſland Quoine 4 or 5 leagues, there are two little Iſlands, you muſt ſayle cloſe alongſt to the northwards of them: from thence eaſt northeaſt unto a great rock, called the great Beefe, and then ſoutheaſt unto another great rock, called the little Beefe.

Haven of Limbrick. Seatrick.

When you are come before the towne in the Haven, you muſt make faſt on the Caſtle with three or foure Cables. For there goeth a very ſtrong tide as well of flood as of ebbe. An eaſtnortheaſt Moone maketh there full ſea.

From the Haven of Limbrick to the haven of Smerrick the courſe is ſouthweſt eight or nine leagues, betwixt them both lyeth the coaſt with a great Bay, where in lye ſome little Iſlands, called the Hoggs.

Smerrick.

A little to the eaſtwards of Smerrick lyeth Sinbrandon-hil, a very high hill, which lyeth in hight very much above all other lands thereabouts, they that come out of the ſea from the weſtwards, ſhall ſee that hill firſt before any other Land, and thereby eaſily know it: Men may ſee it at ſea in the offing, 12, 14 and ſometimes 16 leagues off, according as the weather is cleare.

Sinbrandonhill.

Foure or 5 leagues weſtſouthweſt from Smerrick, a little off from the land lye 4 or 5 Iſlands, being high round Hills and rocks called the Blaskeys, with ſome other rocks and little Iſlands about them. The Sound betwixt them and the maine land, is called the Sound of Blaskeyes, lyeth through neareſt n. n. w. and ſ. ſ. e. Hee that is bound to the northwards, may anchor at the ſouth ſide before the ſound for weſterly and northerly winds, and not be in bayed upon any lee ſhoare: For if the winde ſhift eaſterly, hee may either goe throug the ſound, or elſe goe about a Seaboard the Blaskeys. If the wind ſhift weſterly or ſoutherly, he may run through the Sound, and further his voyage. There runneth through a very ſtrong tyde, as well of the flood as of the ebbe, which muſt be conſidered.

Blaskeyes.

Six leagues to the ſouthwards of the Blaskeyes lye three great Rockes called the Skellocks, the eaſtermoſt about a league, and the weſtermoſt two great leagues a ſeaboard the land, when you come from the ſouthwards & ſee them firſt, they ſhew like ſayles of ſhips. Betwixt the Skellockes & the Blaskeyes goeth in a great broad Bay deepe into the land, called Dinglebay, with divers havens in it.

Skelloks

Dinglebay.

About a league and a halfe from the Sound of Blaskeyes lyeth a haven called Ventrie, a great league to the eaſtwardes of it another called Dingle, or Dingle Couch, it lyeth north and by weſt in, at the weſt point of it lyeth a rocke called the Crow, which is cleand round about, ſo that men may ſayle round about it on both ſides, without taking any hurt, at high water with ſpring-tydes, it floweth even under water. This haven of Dingle and the Skellockes, lye northeaſt and by north, and ſouthweſt and by ſouth diſtand eight leagues.

The Crow.

Northeaſt from the Skellockes, ſoutheaſt from the Sound of Blaskeyes, and ſouth and by eaſt, from the Ventrie, lyeth a haven at the eaſt end of the Iſland Valentia, called Begenny, which lyeth eaſtſoutheaſt in, you muſt give the eaſt point of the Iſlands a birth off, becauſe it is fowle, and lyeth a good wayes off: there lyeth alſo a ſuncken rock on the Iſland ſide, which you muſt take heed of when you are come within the entry of the haven, you muſt goe eaſt and by north unto the road, which is right againſt a red cliffe that lyeth on the ſouth ſide.

Begenny Haven.

The Skellockes and the Cape Dorſey lye northweſt and ſoutheaſt, ſix leagues a ſunder, betwixt them both goeth in alſoo a great broad Sound, northeaſt in, where in lye many Iſlands, havens and roads.

C. Dorſey

C Dorſey. C. Dorſey is an Iſland within, which men ſayle and ryde under. For to goe in there from the ſouthwardes, you muſt give the eaſt ſide a birth, that is, the ſide of the maine land which is foule, & run in alongſt by the ſide of the Iſland, untill you become within, and anchor there.

Bull, Cow, Calfe rockes. Whithout the Cape Dorſey lye three great rocks, the outermoſt or the weſtermoſt is called the Bull, the middlemoſt is called the Cow, and the other the Calfe, they are clean rund about, ſo that men may ſayl there through between them, without feare of any danger, there is nothing that can hurt but men may ſee it.

Mizanhead. About ſix leagues eaſtſoutheaſt from C. Dorſey lieth the point Mizanhead, betwixt them both goeth in a great Bay or river deepe into the land (with divers havens & roades) called the Bantry.

Three Caſtles. A great league to the northwards off Mizanhead, lieth a point, called the three Caſtlehead, upon it ſtandeth three flat Towers, but you can hardly ſee them except they be neere the land, alſo a great league more to the northwardes, lyeth a ſmall point, called Sheepſhead. Betwixt theſe two points goeth in a great broad Bay, called Dounams Bay, there is nothing to doe nor to fetch, but it is a fit place too ſave ſhips, and all over good anchor ground.

Sheepshead.

Beerhaven. From Scheepshead to Beerhaven, the courſe is north and by weſt, or ſomewhat weſterly about two great leagues, it goeth in between a Iſland on the eaſt ſide, and the main land towards C. Dorſey on the weſt ſide, it is about a great Musket ſhot broad, the foreſayd Iſland on the eaſt ſide is called the Iſland of Beer-haven, and is about two leagues long. For to ſayl in there you muſt keepe the mid way, in the entry of the haven it is clean, without any fowle ground: after you are come in, there ſtandeth on the larboard ſide a ruined caſtle, and a little further are two little rivers, cloſe one by the other, between theſe 2 little rivers ſtand ſome Fiſherhouſes. Men may ſaile into the foreſaid little rivers, they are deepe enough, but commonly men doe anchor before them, or by that foreſayd ruined caſtle, or els ſomewhat further in, it is all over good anchoring, and cleane ground, except right againſt the foreſayd little rivers, lye ſome rocks about the middle of the channell, which at high water are under, and at low water lye above water, theſe onely muſt be ſhunned, but men may goe on either ſide of them. Somewhat further in the Bay ſtandeth another caſtle, called Oldcaſtle, from thence men may ſayle alongſt to the northwards of the Iſland Beerhaven, & come out to the eaſtwards into Bantry. The Sound on the north ſide of the Iſland is large, broad, cleane, 13, 12, and tenne fathom deepe. The eaſt point of the Iſland is a ſharpe point, and very fowle, there lyeth of a ledge of rocks, where of ſome lye under water & ſome above water, at low water but the ſide of the maine is cleare & cleane. In this entry lye alſo 2 great rockes high above water, but clean round about, men may run through between theſe rocks, or to the ſouthwards, betwixt them and the foreſayd ledg of rockes or alſo to the northwards alongſt betwixt them and the maine land, as well in comming in as in ſailing out, there is no danger more then men may ſee.

Road in Beerhaven.

The Whiddy From Beerhaven to the north point of the Iſland Whiddy, lyeth the Bantry e. n. e. and northeaſt and by e. 6. or 7 leagues: over againſt Beer-haven in the middeſt in the farreway, it is deepe 40, 36, and 30 fathom, within the Island, 15 and 16 fathom, but further in towards the Island Whiddy, it is againe 20 & 25 fathom deepe: men may ſayle round about the Island Whiddy, (which is abouth a league long) but to the northwards it is beſt.

For to ſayle in about the northwarde, or to the eaſtwardes, men may goe in cloſe by the north or eaſt point, but a little within the point, lyeth a little ledge of rockes, a little musket ſhot off from the ſhoare, which at high water lyes under, but at halfe ebbe beginneth to kome above water that onely is there to be ſhunned, being paſſed that, you may anchor all over. About that foreſayd point lye two ſmall Iſlands, by the greather men may ſayle alongſt on both ſides of it, either within it or without it, untill you come before a Gentlemans-houſe which is white, upon the Island Whiddy, and anchor there againſt it in 3 or 4 or 5 fathom, ſo deepe or ſo ſhallow as men will, according as men deſire to ride neere or far from the ſhoare, it is there all over clean ground.

For to ſayle in to the southwards of Whiddy He that will ſayle into the ſ. point of the Whiddy, had need be very well acquainted, it is there to the ſouthwardes betweene the Whiddy and the maine land, at moſt places fowle and ſtony. From the weſt ſide of the Whiddy, lye alſo ſome fowle ground & rocks, ſomewhat off the Island to ſeawards, ſome above, and ſome under water.

The Abbey. To the ſouthwards of the Whiddy upon the maine land ſtandeth a Friery or Abbey, called by the Iriſh the Abbey, right againſt it, is the common road, & it is very good ground in 4, 5 or 6 fathom, according as you ſhall ride farre or neere to the ſhoare, to the northwards lyeth a little Iſland ſo low in the middeſt, that at a ſpring tide the ſea floweth over, and devideth it in two.

A little league to the eaſtwards of the Abbey lyeth a little towne upon a little river called Balgobben, at high water men may goe up there with their boat, but at low water it falleth dry.

Longerf. A great league from the eaſt point of the Whiddy, weſtnorthweſt, lyeth a haven called Longerf, when you ſhall ſayle from the foreſayd point towardes it, you ſhall meete right in the fareway, about halfe wayes over a great rocke, which men may ſayle about on both ſides, but it is beſt on the off ſide is cleane and cleare, but on the inner-ſide lyeth ſome fowle ground. He that will ſayle through on the inner-ſide, had need to be very well acquainted. The foreſayd haven of Long-erf lyeth n.n weſt: Even within it in the entrance on the ſtarboard ſide, lyeth ſome fowle ground, which at low water (at the Springtydes) may be ſeen drye, theſe muſt beſhunned, or els it is there within all over good anchoring and good ground, there is no more danger, but men may ſee it.

When a man is neer the Iſland Whiddy, about the middeſt of the Bay, he cannot ſee the land without the Iſland Beerhaven on the weſt ſide of the bay, becauſe it falleth a way ſo alongſt to the weſtwardes.

From Mizanhead unto C. Cleare, the courſe is eaſt and by ſouth diſtant ſeven leagues. About three leagues within or to the eaſtwards of Mizanhead, northweſt from C. Cleare, lyeth a haven called Croockhaven. He that commeth from the eaſt, and is bound in there, muſt runne alongſt by C. Cleare, up about it to the northwards, ſo farre untill he may ſee through into ſea to the northwards of the Iſland of C. Cleare, as through a hole, and ſet then his courſe weſtnorthweſt, keeping that foreſayd hole (to the northwardes of C. Cleare) open, then he ſhall fall right with Croockhaven, which lyeth in w.ſweſt. And there he may anchor before the little town in three fathom, and two fathom and a halfe. It was wont here to fore to be deeper there, but it is ſpoiled moſt by caſting of ballaſt, men may alſo anchor further out then before the towne, there it is deeper, and all over cleane ground.

Croock haven.

Two little leagues weſt and by ſouth from C. Cleare, lyeth a high ſteepe rock alone in the ſea, called Faſtney, which ſheweth at firſt ſight like unto a ſayle, north 3 or 4 leagues, from this rock lyeth a haven, called School-haven.

Faſtney rock. School haven.

A little to the eaſtwardes of the Iſland of Cape Cleare lyeth another Iſland, called Iſle Sherk. To the eaſtwards off it, betwixt that Iſland & the maine land goeth in a haven called Baltemoore haven: It is ſomewhat narrow at the mouth of the haven, but within the mouth the haven, it is large and broad, there may you anchor on both ſides where you will, and lye land-lockt for all windes. On the weſt ſide within the haven ſtandeth a Friery, cloſe before it you may anchor in five and ſixe fathom; in the middeſt of the haven, it is ſixe and ſeven fathom deepe. A little to the northwardes of the foreſayd Friery ſtandeth a Caſtle upon a point. In the mouth of the haven lyeth a ſuncken rock, neereſt to the eaſt ſide, and within in the middeſt of the haven lyeth a rocke, which

Ile Sherk.

which at high water lyeth under, and at low water lyeth above water, there is nothing els that can hurt. A little to the eaſtwardes without the haven, lyeth another rock ſixe or 7 ſhippes lengths from the ſhoare.

To the northwards of the Iſland of the Iſle Shercke, men may goe to the weſtwards through betwixt Iſle Shercke, and the Iſland Spain, and come out againe into ſea by C. Cleare, but it is to bee done onely with ſmall ſhipping, and yet not without danger. Betwixt Iſle Shercke and Spain, is at halfe flood not more then 12 or thirteene foote water. At divers other places betwixt theſe Iſlands, it is rocky and ſhoale, ſo that it is not good to goe through within, except men bee very well acquainted, and yet at high water and ſpring tydes.

A little league to the eaſtwards of Baltemoore lye the Stagges, an English mile from the ſhoare, they are five or ſixe high ſteepe rockes. When men come from the eaſtwards alongſt by the ſhoare, and get firſt ſight of them, they are like unto ſome ſpire towers together, men may ſayle through betwixt them and the maine land, it is there large and broad enough.

Northeaſt about 2 leagues from the foreſayd Staggs, lyeth Caſtle-haven, without it on the eaſt ſide lyeth a little Iſland, you muſt leave it on the ſtarboard ſide in ſayling in, and another little flat Iſland on the larboard ſide, that lyeth ſo cloſe to the land, that at low water men may goe dry foot over from it to the maine land. Within the haven ſtandeth a little Chappell, when you will ſayle in there, you muſt run in right with it, cloſe alongſt by the foreſayd little Iſland on the eaſt ſide: When you are come in, thwart of te Chappel, you ſhall ſee a Caſtle on the weſt ſide, over againſt that Caſtle you may anchor in 12 fathom.

From Caſtle-haven unto the Oldhead, the coaſt lyeth moſt eaſtnortheaſt and w. ſ. weſt, but C. Cleare and the Oldhead lye northeaſt and by eaſt, and e. n. eaſt diſtant 14 leagues.

About halfe wayes betwixt Caſtle-haven and the Oldhead lyeth a high poynt, called by the Irish, Kedonetedo there by it on the weſt ſide is a good haven, called Clandore: For to ſayle in there, you muſt run in alongſt cloſe aboard by that foreſayd high land on the eaſt ſide; for to ſhun a rane of rockes that lyeth on the w. ſide, and lyeth off ſomwhat towards the eaſt ſide, when you are come in, you may anchor before a Caſtle in 5 or 7 fathom.

The Oldhead or C. de Velho, is a poynt that lyeth out farre without the other land, the outermoſt ſouth end of it is very high and ſteepe, when you are come alongſt the ſhoare from the eaſt or from the weſt, and ſee it firſt, it ſeemeth to bee an Iſland, upon the top of it ſtandeth a ruined caſtle with three Towers, whereof the middlemoſt is the higheſt. On both ſides of this outlying point men may anchor ſo deepe or ſhoale as they will.

About two leagues north and by eaſt from that poynt lyeth the haven of Kinſale, lying in northnortheaſt, you may ſayle in there, keepingh the middle of the channel, there is no danger, neither without not in the harbours mouth, but one ſuncken rock cloſe by the eaſt poynt. when you come in from the Oldhead, or from the ſouthwardes, and you keep an old ruined caſtle (that ſtandeth within the haven on the eaſt ſide) even without the Innermoſt eaſt point of the haven, then you ſhall not come neere that rocke to take any hurt of it. About a great halfe league to the eaſtwardes or the havens mout, lye two great black rockes, the one ſomewhat further from the ſhoare then the other. When you come from the eaſtwardes, and you will goe in cloſe about the eaſt point, and you keepe the ſouthermoſt (that is the greateſt) right on the eaſt poynt, then you ſhall go through betwixt the ſuncken rock & the poynt: But if you keepe the northermoſt (or the ſmalleſt) a little without the foreſayd poynt, ſo long untill you have brought the foreſayd old ruined Caſtle, without the innermoſt poynt, then you ſhal goe alongſt without it, and then in the midſt of the channell alongſt by the eaſterne ſhoare. A little paſt that foreſayd old ruined Caſtle, ſtandeth a Caſtle on the weſt ſide upon a poynt, there lyeth off a ſhoale, which muſt be ſhunned, and therefore you muſt keep cloſe alongſt by the eaſter ſhoare, untill you be gotten about the ſhoale of the Caſtle, and then weſtwardes up unto the Kay of Kinſale, there you may anchor in eight or nine fathom, and lye landlockt for all windes. The towne Kinſale lieth a little to the northwardes in a bay, where it is oaſie ſoft ground part where of falleth dry at low water.

Foure leagues to the eaſtwardes of Kinſale, lyeth the haven Corck, betwixt both about a league to the weſtwardes of Corck, you ſhall ſee (ſayling alongſt the coaſt) two ſteepe hommockes like Towers in the land, not farre one from the other: theſe are notable marks for to know the coaſt. When you are thwart of the eaſtermoſt, you may ſee the havens mouth of Corck, that lyeth in n. northweſt, within it is wide and broad, and goeth up into the land with a broad river. On the eaſt ſide, ſomewhat within is a poynt, where lyeth off a ledge of rocks, which muſt be ſhunned. There over againſt on the weſt ſide, ſomewhat farre in, lyeth another point with an old ruined caſtle, there alſo lyeth of a ſhoale, to the northwardes of it, men goe about to Corck. Within that Caſtle lyeth a little tyde haven in a ſandy Bay. Within the haven lyeth an Iſland, where men doe ſayle round about, & at the ſouth ſide there of may ride. It is in this Haven of Corck at lowe water, 7, 8, or ten fathom deepe. Corck.

A little without the eaſt poynt ſtandeth an old ruined Caſtle upon the low land, and ſomewhat further eaſtward, a ſquare Tower in a valley. A league to the eaſtwards of the havens mouth ſtandeth a Tower upon a high poynt, cloſe to the water ſide, with ten or twelve thatcht houſes by it More over, a league further eaſt, by a ſmooth poynt, lyeth a long rock growen about with greene, upon the eaſt ſide of that poynt ſtandeth a flat tower, further, it is to the eaſtwards all low land, unto the poynt of Jochul.

Of the Tydes and Courſes of the Streames.

In all theſe foreſaid Havens maketh high water an e. n. e. & w. ſ. w. Moone or a poynt later, according as they lye deep within the land.

But a ſeaboard the coaſt in the offing, a northeaſt and ſouthweſt Moone.

At the Mizanhead, C. Cleare, and the coaſt to the eaſtwards, a w. ſouth w. and e. n. e. moon maketh high water, within the Havens and indraughts, a poynt later, to wit, e. and by n. & w. and by ſ. But in the channell a ſeaboard the land, a n e. and ſ. w. moone.

Without C. Cleare by the land, the flood falleth away e. & the ebbe w. but to the e. wards of C. Cleare e. n. e. and w. ſ. w.

On the ſouth coaſt of Ireland an e. n. e. and w. ſ. w. Moone maketh high water, within de Havens a poynt later, to wit, an e. and by north, and w. & by ſouth Moone: but in the offing a ſeaboard a ſouth w. and north e. Moone.

Betwixt C. Cleare, along the Coaſt before Waterford into the poynt of Carnaroort, de flood falleth alongſt the coaſt. e. n. e. and the ebbe w. ſ. w.

Of the Depths.

Betwixt C. Cleare and the Dorſeyes, men may ſee the land in 58 and 60 fathom.

From C. Cleare to the e. wards unto Waterford, men may ſee the land in 54 fathom. The moſt part of the ſouth coaſt of Ireland, men may ſee it in 35 and 40 fathom. In 35 fathom you ſhall not be farre from the land. Therefore come no neerer Ireland by night then in 40 fathom.

Courſes & Diſtances.

From Slynshead unto the Bay of Galloway, ſoutheaſt, 9 leagues.

From the Bay of Galloway to Lupishead the n. poynt of Limbrick haven s. s. w. 11 or 12 leagues.
From Lupishead to Smerrick s. w. 8 leagues.
From Smerrick to the Blaskeys w. s. w. 4 leagues.
From Sleynshead to Sinbrandonhill south and by west, 22 leagues.
From the Bay of Galloway to the Blaskeyes, southwest 23 leagues.
From the Sound of Blaskeyes unto to Shellocke, the course is south 6 leagues.
From Dinglehaven unto the Skellockes, south w. and by south 7 or 8 leagues.
From the Skellockes unto the Dorseys, s. e. 6 leagues.
From the Dorseys to Mizanhead e. s. e. and s. e. and by e. 7 or 8 leagues.
From Mizanhead to Sheepeshead north, 2 great leagues.
From Sheepeshead to Beerhaven, the course is n, and by w. somwhat westerly, scarce 2 leagues
From Mizanhead to Beerhaven n. and by w. 5 leagues.
From Beerhaven to the Island Whiddy, the course is e. n. e. and n. e. and by e. 7 or 8 leagues.
From the Dorseys to Silly s. e. and by e. 56 leagues.
From the Dorseys to Cape de Finisterre is the course s. and by e and south 173 leagues.
From Mizanhead to C. Cleare east and by south distant, 7 leagues.
From C. Cleare to Croockhaven n w. 5 leagues.
From C. Cleare to C. Veelo or Oldhead e. n. e. and n. e. and by e. 14 leagues.
From Cape Cleare to the Lands-end of England east s. e. 53 leagues.
From C. Cleare to Silly s. e. and by e. 46 leagues.
From C. Cleare to C de Finisterre south 173 leagues.
From Oldhead, or C. de Velho, to the haven of Kinsale, is the course n. and by e. 2 leagues.
From Oldhead, or C. de Velho to Corck, east north east 5 or 6 leagues.
From C. de Velho to the Landes end of England s. e. and s. e. and by e. 45 leagues.

Heights.

C. Clar lyeth in 51 degrees, 12 minutes.
Cape de Velho, or Oldhead lyeth in 51 degrees, 28 min.

How these Lands doe shew them selves at Sea.

The Islands, as also the maine land by north and by south the Bay of Galloway, shew, as you may see in these 5 following Figures, when as you are right before the Island of Aron, which lye before the Bay of Galloway.



Northbeing 8 leagues from you. N. n. e. 10 leagues.

These 4 following figures belong one to the other, as the markes doe shew.



N. n. w. 6 leagues the maine Land by n. Galloway. N. 3 leagues.

Betwixt these two Islands, it is 20 fathom deepe.



The 3 Islands of Aron before Galloway.



S. e. and by s. 7 leagues. S. s. e. 8 leagues. S. and by e. 9 leagues.



This belongeth to the 3 figures, going before, the AA, BB, CC. one to the other.

N. n. e. 4 leagues. East 5 leagues. East n. e. 6. leagues. Being. 8 leag. n. e. and by e. from you.



Thus sheweth the land on the Islands betweene Limbrick and Galloway, when as you come out of the sea.

Being n. e. and by n. 4 leagues from you. N. e 4 leagues. N. east and by e. 5 leagues.



When as the middest of the Islands of Aron (which lye before Galloway) is north. e 4 Dutch leagues from you, it sheweth it selfe thus: and that southerly little Island sheweth then low and flat.

C. Kerry. or Sinbrandonhill.



Blaskeeys.

The

A



The land of C. Kerry, or Sinbrandonhill [by ſome called Devils hill] unto the Blaskeyes, lying n. e. and by e. 5 or 6 leagues, ſheweth as is Deſcribedout in theſe two figures, when the foreſayd hill of Sinbrandon is e. ſ. e. from you three or foure leagues.

Iſlands to the northwards of the Blaskeyes. A Cnannell. Sound of Blaskeyes.



The Blaskeyes.



Blaſques. Blaſques.



S. ſouth eaſt being 2 leagues and a halfe from you.

The Blaſques being ſ. e. and by ſ. 3 leagues from you, ſheweth thus.

Out-Rock.



South-eaſt 3 leagues from you.

The higheſt rock of the Blaſques, being two leagues e. and by ſouth from you, ſheweth thus.

Northnorthweſt.



The Blaskeyes. Sound of Blaskeyes.

The Blaskeyes, and the land to the eaſtwards of them doe ſhew themſelves thus, when you ſayle from the Shellocks towards them.

An entrance. All double ragged land. The Skellockes.



Thus ſhew the Skellockes with the land to the eaſtwards, or to the northwards of them, when you are ſomewhat to the northwards of them, and ſayle alongſt by them.



When you are by the Skellocks, then the Iſlands lying to the northwards and to the eaſtwards of them, ſhew themſelves thus.

Eaſt and by north, 2 leagues. Skellockes.



E. ſ. e. 2 leagues and a halfe.

The Skellockes, beinſt eaſt and by ſouth from you 3 leagues, ſheweth thus.



This is an entrance.

Theſe Iſlands lye to the ſouthwards and to the eaſtwards of the Skellockes, the land from thence eaſtward towards the Dorſeyes, is all high broken and very ragged land.



This Iſlands lyeth betwix the Skellockes, and the Dorſeyes cloſe by the land.



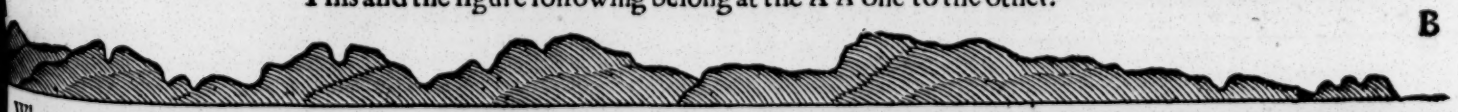
Thus ſhew the Dorſeyes, with the Rocks, Bull, Kow, and Kalfe, which lye without them, they are to the ſouthwards of you.

A



This and the figure following belong at the A A one to the other.

B



When you are to the eaſtwards or to the ſouthwards of Dorſeyes, they ſhew as is ſhowne out in theſe 2 figures here before. The eaſt end at B ſheweth almoſt like Cape Cleare, being eaſt from you, but it is a higher land.

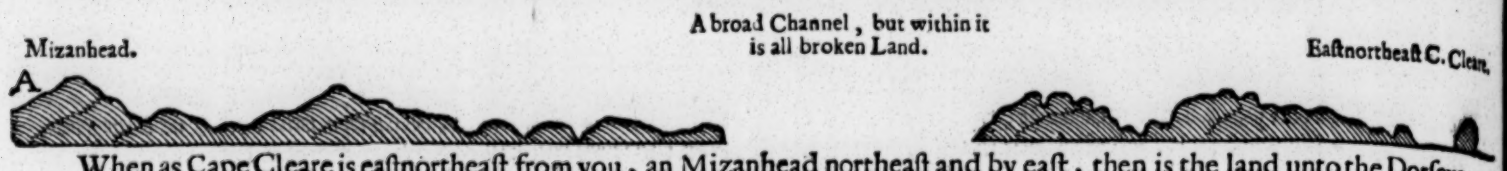
The Dorſeys. Hilly and very ragged Land. Northeaſt and by eaſt.

A

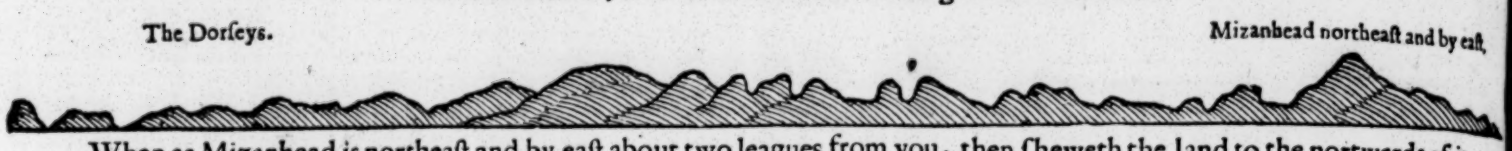


Theſe two figures belong one to the other at the A A.

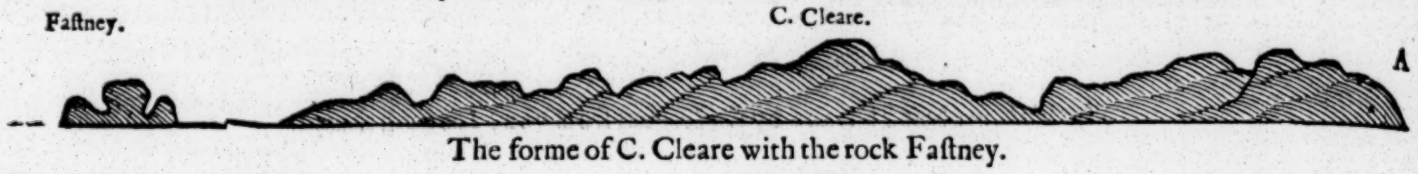
Mizanhead.



When as Cape Cleare is eaſtnortheaſt from you, an Mizanhead northeaſt and by eaſt, then is the land unto the Dorſeys in theſe formes, as is ſhewed in theſe two figures here before.



When as Mizanhead is northeaſt and by eaſt about two leagues from you, then ſheweth the land to the nortwards of it towards the Dorſeys. And then may you alſo ſee the Iſland of C. Cleare eaſt from you.



The forme of C. Cleare with the rock Faſtney.



Rock a little to the eaſtwards of Baltemore. This belongeth to the figure going before the A A, one to the oter, being the land to the e. wards of Baltemore.



Thus ſheweth C. Cleare, when it is north from you 5 leagues, and there it is 58 fathom deepe.



C. Cleare ſheweth thus, being north and by weſt from you.



The Cape Cleare, being n. w. 7 or 8 leagues off from you, ſheweth thus. If you then beare n you ſhall fall right with Oldhead, when you come neare the ſhoare, you ſhall looſe ſight of the high land, & it ſhal ſeeme to be all low land.



This followeth the former figure, the eaſtermoſt hommockes at A are the high hils about Jochull, which you may hardly ſee when C. Cleare is n. w. from you 7 or 8 leagues off, they lye far within the land, and the clouds oftentimes hang over them.



When you are before Oldhead two leagues, or two leagues and a halfe a ſeaboard the land, then ſheweth the land to the weſtwards unto C. Cleare, and the land to the eaſtwards of Oldhead, in this forme.



When the poynt of Roſſe is weſt and by north from you, it ſheweth thus.



Thus ſheweth Oldhead when it is w. ſ. w. a halfe league from you, then may you ſee the Haven of Kinſale open.



When Oldhead is weſt 2 leagues from you, it ſheweth in this forme.



The land a little to the e. wards of Kinſale ſheweth thus.

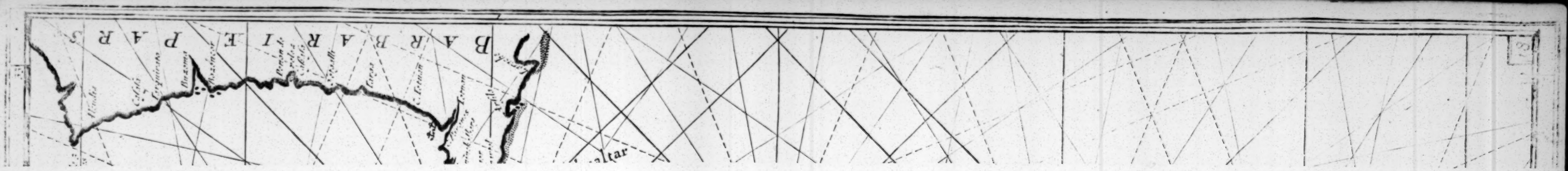


The land to the eaſtwards of Corck towards Jochul, ſheweth in this fo



When you are to the eaſtwards of Corck, not far from the land, and that the harbours mouth doth begin to open, then ſheweth land as it is deſcribed in theſe two figures, at the A, belonging one to the oter, being neare the land it ſeemeth to be hig land, but a far off (when you can ſee the high inner land, within Jochul over the cliffe land) it ſemeth to be but low.

The


BARBARIE
PARS

POICTOV

BRETAGNE

BISCAIA.

GALLICIA

Rochelle

Bayona

S. Sebastian

Bilbao

Castro

S. Andero

Ribadeus

C. de Ortegal

Corunna

C. de Finisterre

Les Sables

Les Sceaux

Les Saints

Les Sceaux

Les Sceaux

Les Sceaux

Pas Caart van de Custen
van
HISPANIA,
Andaluzia, Portugal, Gallissien, Biscajen,
en een gedeelt van Vranckrvck,
beginnende van Herfant tot
aen Larache.

Nieuliex uytgegeven.

t'Amsterdam.

Mathijs Jacobsz. op't Water in den Lootsman.

A. D. GRANADA.

BARBARIE PARS

Gibraltar

Straete van Gibraltar

S. Lucar

PORTVGALIA.

Algarve

Setubal
S. Vues

Lisbona

C. S. Vincent

C. de S. Maria

Aveiro

Porto a Pao

Barlamos

C. Roxent

S. Vues hoeck

De Zee-custen van

BRETAIGNE

van Heyssandt tot aen Boelyn.

't Amsterdam;

By Iacob Theunisz opt water in de Loots man.

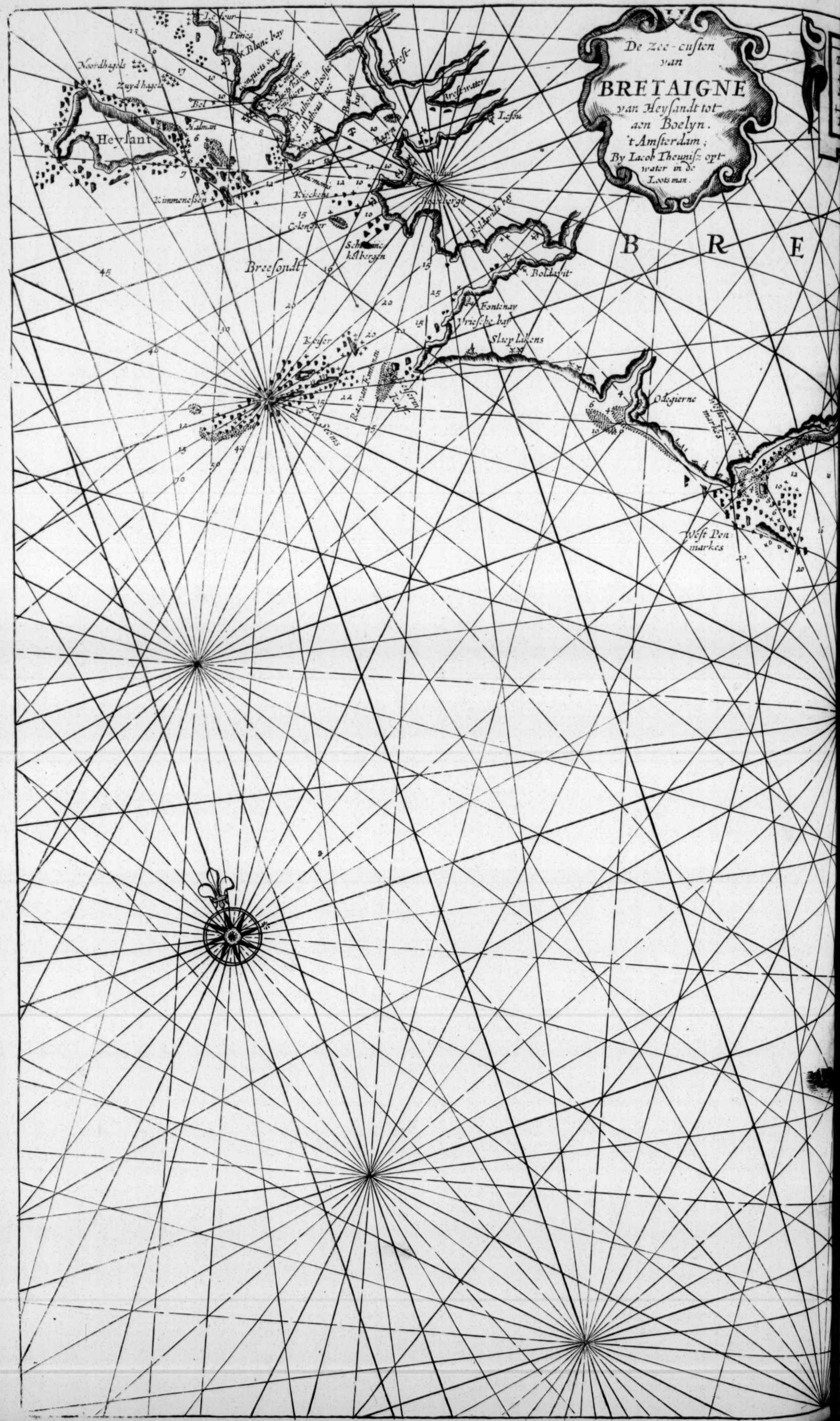
B R E

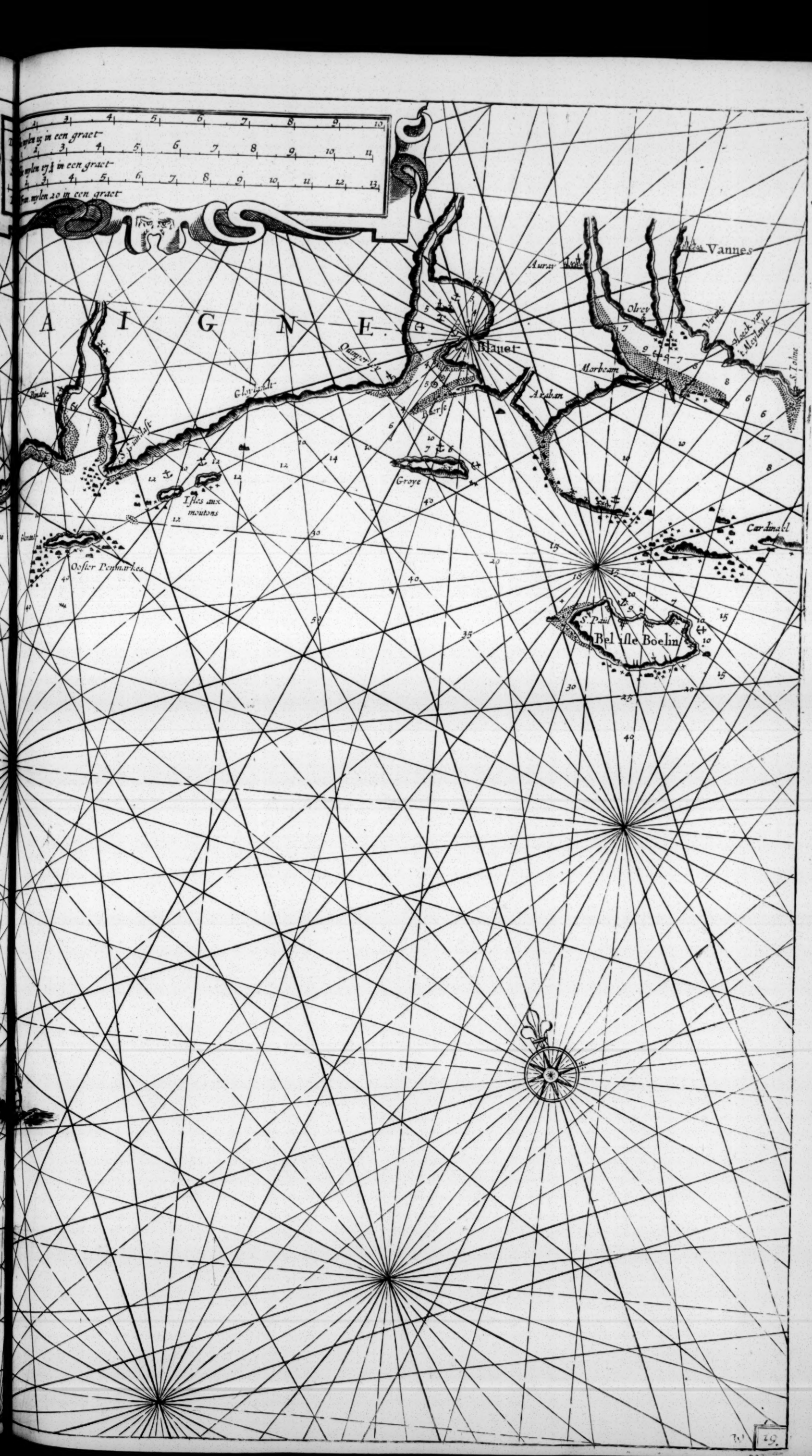
Heylant

Breesandt

Oostgierne

West Pen marckes




A I G N E.
Blanet
Vannes
Auray
Olrey
Morbeam
Groye
Isles aux moutons
Oosser Penmarkes
Bel isle Boelin
S. Paul
Cardinael

The ſecond part of the
LIGHTNING COLUMNE,
OR
SEA MIRROUR.
THE THIRD BOOKE,
Of the
WESTERNE NAVIGATION.

Containing

The deſcription of France, Biſcay, Galliſſia, Portugal, and Algarve, from Heyſſant to the Straights of Gibralter.

The firſt Demonſtration.

Where in

Are ſhewed the coaſts of France, from Uſhant to the Iſland of Bel Iſle, or Boelin.

THe Foure and Uſhand lye weſt-ſoutweſt & eaſtnortheaſt diſtant two great leagues. Uſhant ſheweth it ſelfe at ſea at the ſouthend low, and at the north end going up ſloping, upon the midſt of it ſtandeth a little flat Tower, by which markes it is eaſy to beknowne.

For to ſayle through within Uſhant, the courſe from the Fourne to Saint Matthewes poynt is ſ. ſ. e. 4. leagues. At the poynt of the Foure lye two rowes of little Rockes, and to the ſouthwards of them alongſt the coaſt lye three other heaps of rocks, each of them about an Engliſh mile one from the other: runne alongſt within two Cables lenghts by the foreſayd rockes at the poynt, which is much nearer the eaſt ſide, or the maine land, then Uſhant, fur to ſhun the norther Haghels, which doe lye betwixt Ushant and the foreſayd rockes or Ovens, or elſe if you keepe S. Matthewes Abbey in the tow valley to the eaſtwards of Conoort, & ſayle ſo right with it, then you run through neareſt the eaſt ſide, and in the middeſt of the channell, betwixt the foule ground and the Rockes, until you come thwart of Blanck-bay, or neare Conquets-oort, there ſtandet a mill upon the high land alone, when it is eaſt from you, then the ſouther Haghels lye weſt and by north from you, and the norther Haghels northweſt and by weſt: there is alſo a high flat peece of land, a little to the Abbey of Saint Matthewes, the top if it being even and plaine, like unto a long plaine houſe, when that commeth even without the poynt Conquets-oort, and the foreſayd mill be eaſt and by ſouth, and eaſtſoutheaſt from you, then lye the north Haghels weſt and by ſouth from you, ſoo that when the foreſayd mill is eaſt thwart from you, then are alſoo the Haghels weſt thwart from you. When Halman or Hayman hill (that is a high rock lying at the eaſt end of Uſhant) commet over the northweſt end of the northermoſt Mollens by the French called Cheminees, then are you alſo of thwart of the Haghels.

Hee that muſt turne to windwards from the Fourne towards Conquet, or ſaint Matthewes poynt, let him make uſe of theſe markes: In the poynt of Conquet haven, or Conquets oort, are two valleys, the one is great, that is the weſtermoſt, and one little, that is the eaſtermoſt, in manner as is here pourtrayed.



When you runne over to the eaſtwards towards the land, and that the Abbey of Saint Matthewes commeth a Capſtane barrs length to the eaſtwardes of the ſmalleſt valley, according as is ſhewed in this figure, then it is time to caſt about and when you runne over to the weſtwards towards Uſhant, and that the foreſayd Abbey off Saint Matthewes commeth a little without the poynt off Conquet Haven, you muſt alſoo caſt about, for when the foreſayd Abbey commeth two ſhippes lengths without the foreſayd poynt then are you cloſe by the Haghels. The Norther and the Souther Haghels lye a bout a ſhot of a caſt peece diſtant one from the other.

Two or three Cables lengths thwart from the poynt off Conquet haven, or Conquets oort to ſeawards lieth a ſuncken rock, which with a ſpring tyde commeth above water, called the Vintner, by the French le Bell. For to avoyd it comming from the northwards, or from the Fourne, and being come from the foreſayd markes (of S. Matthews Abbey in the great valley of Conquets oort) unto cloſe by Conquets-oort, then run cloſe about by it, alongſt within a Cables length of the poynt, or keepe the Abbey of Saint Matthewes even without the poynt of Conquets-oort, and ſo cloſe about it, within a cables length, as before is ſayd, and then you ſhal leave the Vintner a Cables length or two on the ſtarboard ſide of you, and can take no hurt of it. The Vintner.

When the little Church upon the poynt of Conquets-oort is eaſt from you, then is the Vintner weſt right thwart from you, or elſe when that the Souther-houſes off Conquet, beginne to come without, or to the poynt off Conquet, then you have alſo the Vintner upon your ſide, weſt and weſt and by ſouth from you, a little ſhot of a caſt peece.

If you ſayle into Conquet-haven, then runne about the poynt within a cables length, as is before ſayd, untill you ſee the haven open, then you come againſt the Feneſtiers, which are rockes that lye off about a Cables length from the Eaſt land of Conquet-haven under water. For to avoyd them, runne alongſt by the norther ſhoare, untill you come within the Haven. Betwixt the Feneſtiers and Conquet-haven. Feneſtiers.

Ianck Moines. the blanck Moines (that are rockes by Saint Matthewes poynt) is a good road under the Abbey of S. Matthewes, as well for them that are bound to the northwards as to the southwards. If jou will goe into this road comming from Conquets-oort, then run right with the blanck Moines, untill that the Abbey of saint Matthewes be east-southeast from you, sayle then towards it untill you come before the Abbey, and anchor there in six or seven fathom.

About a league to the eastwards of S. Matthewes poynt, towards Brest, lyeth a suncken rock, about halfe a shot of a cast peece from the north shoare. If you will saile into Brestwater, then goe from S. Matthewes poynt a way east and by south, and eastsoutheast, and keepe the north-end of the southermost Mollens, without S. Matthewes point, so long, untill that the mill upon the north-land come to the northwards of the trees, then you sayle alongst to the southwards of the foresayd rock, and so doing, you can take no hurt off it, but if jou bring the south end of the Mollens neare or to S. Matthewes poynt, you shall not sayle to sayle upon it.

For to sayle to the northwards of te foresayd Rocke, you must runne from S. Matthewes poynt alongst by the North land, and keepe the Southermost Mollens hidden behinde the great Rocke that lyeth off from S. Matthewes poynt, and sayle then right with the west poynt of Bartrams bay, untill that the foresayd mill standing upon the North-land, commeth to bee northwest and by north from you, and the trees stand northnorthwest from you, then shall you be past the foresayd Rocke, but to runne alongst to the soutwards of it, is best and broadest. For to sayle forth alongst to Brest (being past the foresayd rock) you must run fort within two cables lengths alongst by the north shoare. A little within the east poynt of Cordon, or Claesdownes, lyeth a rane off Rockes, about the midest of the channell in the mouth of Brest-water, which at low water lye above water, and at high water are under water, called the Baginne, you may runne alongst on both sides off it, but to the northwards of it, is best, when the south poynt of Brestwater commeth over the poynt of Crodan, then are you thwart off the foresayd Bagyne, which lyeth about two Cables lengths from the north shoare, runne alongst to the northwards of it: When the Brest commeth without the poynt, sayle then soo right to it, you must anchor there with an anchor to seaward in eight or nine fathom; and with a cable a shoare fast on a tree: When you come within the Bagyne, you may edge up to the eastwards, or to the southwards before the river of Landerneau or Lefou, and anchor there under the south-land, in ten, twelve, or thirteene fathom. Before the little towne old Croidan. Brest-water, or the river of Landerneau, lyeth in most eastnortheast, and it is Pilots water, hee that is bound in there, may take a Pilot to bring him in where hee desireth to bee: It floweth there with an ordinary tyde, three fathom up and downe, a southwest and by west, and northeast and by east moone maketh there full sea.

Baginne

Lefou.

If you come to anchor within Brest, you must pay for anchoringe ten soubs, and for it you shall get a ticket off freedome. If it should happen that you should loose your shippe upon Britaigne, you might there with challenge your goods, else they are unfree.

Bartrams Bay. Bartrams bay lyeth about two leagues to the eastwards of S. Matthewes poynt, a little league past the foresayd suncken rock, there is good anchoring for a north, & northeast wind in 10 and 11 fathom.

Croidan Over against Bartrams bay lyeth Croidan or Claesdownes from Saint Matthewes poynt, southeast distant about 3 leagues, it is great bay, for to sayle from S. Matthewes poynt to Croidan, you must keepe the southermost Mullens even without the black Moines (that are the Rockes without S. Matthewes poynt) and go away east and by south, end e.s.e. untill you come before the bay, & may see open into it, then you shall see a Chappel, or little Church stand upon a chindle, run in right with it, anchor thereabouts, in 6, 7, 8, 9, or 10 fathom, there is the best road.

The Mullens are the rockes which lye there to the southwards of Ushant, and to the westwards from Saint Matthewes poynt. Betwixt them and Ushant lyet a channell northeast and southwest through, which is in different large and broad, and deepe enough, there remaineth at louw water 6 and 7 fathom water. Hee that commeth from the northwards, and cannot sayle a weather of Ushant and the Mullens, by reason of the flood may run through here, or he that commeth out of the sea, and with northerley winds, cannot sayle a weather of Ushant, may with a flood run through here, and so further his voyage, when men runne through here, either in or out, an keep the middle of the channell betwixt both lands they can take no hurt.

From S. Matthewes poynt to the race of Fontenay, or the Keyser and Lavender, the course is south and by e. 6. leagues, betwixt them both lye divers rocks, where of men must take good heed, as the Hen with the Chickens, the Collier, the Falconers, Scheminckelborrowes and other more. The Hen with the Chickens and the middlemost Falconer or Foukenisse, lye from S. Matthewes poynt s. e. & by east distant a league & a halfe, buth the Collier lyeth from Saint Matthewes point s. s. e. also a league and a halfe.

The Falconers, or Foukenessen lye from the west poynt of Croidan about westsouthwest an English mile. The innermost or southermost Falconer lyeth from the northermost s. s. e. about a halfe league, or two shots off a cast peece, and from Croidan southwest & by south, & is coverd ad high water. North n. e. a cables length from it, lyeth another suncken Rocke, which at low water may even be seene. To the westwards of the northermust Falconer lyeth also a suncken rock which at low water may even be seene.

The Hen lyeth from the Falconers w. s. w. about 2 cables lengths, or a shot off a cast peece, it is a round sharpe rocke, it is round about it deepe and cleane, in 6 and 7 fathom. The Chickens are two sharpe little rockes, which at low water may even bee seene, and lye about the shot of a Base northnorthwest from the Hen, and west from the northermost Falconer.

The Scheminkelbroughs lye to the southwards off the Falkoners, men may run through betwixt them in ten fathom, to the poynt of Croidan, there is good road and anchor ground.

If you will sayle from S. Matthewes poynt to the Race of Fontenay, you must goe away south and by east, and bring the mill off Fenestiers, which standeth upon the cast poynt of Conquet-haven, over the poynt of S. Matthewes, a little to the westwards of the Abbey, and keepe them so standing so long as you can see them, and you shall not come to neare the foresayd Rockes, to take any hurt off them. When as then you come to the Keyser and Keyserinne, first give the Keyser a birth, because off some suncken Rockes which lye off from the eastside of it under water. From the southwest side of the Lavender runneth off a foule ledge of Rockes, called the Calfe, there the tyde falleth very strong over it, with very great rippeling. This Channell of the Race of Fontenay, lyeth through betwixt the Keyser and Lavender s. s. w. & n. n. east. He that will sayle through here, must be very careful to cast his tides well, for it runneth most thwart over this Race, soo that with a southwest wind, and an outfall or ebb, and also with calmes, it is very dangerous to come into this Race.

A little to the southwards of the Keyser, lieth the east end of the Seames, and lye from thence at least three or foure leagues w. n. w into sea. A great league northwest from the west poynt of the Seames, lyeth a suncken rock, where of men must take heed.

And westsouthwest about two leagues from the Seames, lyeth a row of rocks, like a bancke, where upon

it is

it is not deeper then ſeven fathom, but betwixt the rocks & the Seams, it is 50 fathom.

Betwixt the Seames and Ushant the broad ſound lyeth in e. n. e. to S. Matthewes poynt, and from S. Matthewes poynt w. ſ. w. 5 leagues into ſea.

To the eaſtwards of Fontenay, or the Lavender, lieth the Frieze Bay, there men may anchor for a ſoutheaſt & eaſt wind, in good anchor ground.

To the eaſtwards of the Frieze Bay, lieth Boldavids Bay a broad deep ſound, lying into the land eaſt northeaſt. At the eaſt ſide of that haven lye 2 little Iſland or Rocks, where men may anchor round about them, and lye sheltred for al windes.

From the Race of Fontenay to the Pennes, the courſe is ſoutheaſt ſomewhat eaſterly about 10 or 11 leagues, betwixt them both lyeth Oldyarne, a good Haven, about 7 leagues eaſt ſoutheaſt from Fontenay. Thwart before the entry of it lyeth a banke where men may run about it on both ſides in 6 fathom.

The ſouth poynt of this Haven is flat, therefore run in alongſt by the north point, there is at low water not leſſe then 3 fathom depth. From Oldyarne to the Pennes it is ſ. e. and by ſouth.

If you will anchor before Port Kapſtand, you muſt anchor in 12 or 13 fathom, before the village that ſtandeth upon the high land, about halfe waies betwixt the point of the Race, and the great ſand bay of Oldyarn, where of the little sharpe Tower doth ſtand, the point of the Race shall then lye from you about northnorthweſt, and you shall then lye a great half leagtie from the land, further off from the ſhoare it is rocky and foule ground, as ſome ſay. There have ſome nevertheleſſe come to anchor there by night in 3 or 4 leagues from the ſhoare in 25 fathom, but hove not received any hurt neither of cables nor anchors.

The weſt end of the Seames, and the Pennes, lie ſoutheaſt and by eaſt, and northweſt and by weſt, diſtant about 13 leagues.

The knowledge of the land betwixt Fontenay and Oldyarne, are two round hills, which men doe call the sheets, or Slaeplakens, to the weſtwards of them ſtand two Mills. It is a very ragged point, and by theſe foreſaid markes very good to be known. Men may ſee them without the Seames in 55 fathom.

From Oldyarne to the Pennes lyeth the coaſt ſoutheaſt and ſouth 5 leagues.

The Pennes are very eaſy to be known, for him that hath ſeen them once: upon the ſoutheaſt end ſtandeth a thicke flat Tower; a little to the weſtwards of it ſtandeth a ſharpe tower, and ſomewhat more to the eaſtwards againſt the high land, ſtandeth a village appearing like a caſtle, upon the eaſt ſide there of ſtandeth a flat tower, and there cloſe to the land lye 2 great rocks.

The pennes lye off from the maine land, ſoutheaſt two leagues into the ſea. For to ſayle in there, you muſt come in there from the eaſtwards, and run alongſt by the ſtrand of the maine land, leaving all the rocks on the larboard ſide, untill that you come to a great rock, which you muſt leave on the ſtarboard ſide, and runne about to the ſouthwards of it, being paſt it, edge within it up towards the Northweſt, and you may anchor there a little within, in three fathom at low water, lying there, you can ſee no ſea, but at high water the ſea cometh very much tumbling in through the Rocks: You may goe away from thence at high water ſoutheaſt through the Rocks into ſea, but you muſt take very good heed, becauſe it is there full of Rocks where of ſome are above water, and ſome under water. Without the foreſayd great Rock in the comming in of this haven, it is at leaſt ten fathom deep, ſo that for need men might well ſave a great ship there.

From the Pennes to the Glannons or Glenant, the courſe is e. ſ. e. with that courſe you shal run alongſt to the ſouthwards of them. Within the Glanons lieth a Haven, called Bindeth, at the eaſt point of that Haven it is full of rocks. For to ſaile in there, you muſt take heed unto theſe marks: there ſtand two Mills farre within the land, bring the eaſtermoſt of the 2 over a little caſtle that ſtandeth upon a point within the Haven, and run in, keeping them ſoo n. and n. e. and by eaſt in, and then you cannot take hurt on neither of both ſhoares, and being come within the haven, anchor before the Town.

A league ſouthweſt from Gloylend or Glenant, by the Dutchmen, called the eaſter Penmarkes, lieth a great Rock under water, but is good to be eſpied, in regard the ſea alwaies breaketh upon it; as well within as without this Rock it is 40 fathom deep.

When you come of from the Pens, with an e. ſ. e. courſe, you ſhall runne alongſt farre enough to the ſouthwards of it. About 2 leagues the eaſtwards of Glenant, lye the Iſlands of Muttons, by the French called Iſles aux Moutons, you may ſayle through betwixt them and the main land, unto Groy or Blavet, alſo you may anchor within them in 10 or 12 fathom, betwixt the land and the foreſaid Iſlands, which are cleane upon the north ſide. Moutons Iſlands.

Betwixt the Iſland Mutton and Glenant lyeth a rock, for to avoyd it (for them which will ſaile through there, betwixt them) they muſt leave one third part of the channel towards Glenant, and the other tho third parts towards Mutton, and then they may boldly run through there without feare.

From Mutton to the Iſland Groy the courſe is eaſt and by ſouth, upon the outer ſide of Groy ſtand 3 or 4 mills, the eaſt end of it goeth ſteepe downe, and the weſt end ſloping and flat down, thereby it is good to be known. Under Groy is good anchoring for a ſ. w. winde in ſix or ſeven fathom: Under the n. e. point alſo is a good road for a w. ſ. w. & n. w. winde, there is very good anchor ground. At the ſ. w. end runneth off a foule ledge, where of men muſt take good heed. Groy.

Within the Iſland Groy lyeth the Haven of Blavet, which lyeth in about northweſt in 4 and 5 fathom. Upon the weſt ſide of this haven ſtandeth a high sharpe Tower called Quinperly, from the eaſt poynt runneth off a great ledge of rocks, called the Baers, within it on the eaſt ſide of the entry of the Haven lye two ſuncken Rocks, alſo on the weſt ſide a Rock with a hole, which at halfe ebbe is uncovered, whereof men muſt take very good heed in the comming in; men run in alongſt by the weſt land, for to eſchew the foreſayd ſuncken rock & foule grounds. The marks for to ſayle in there are theſe, there lyeth a little Iſland within in the middeſt of the haven, which you may ſee when you are without the haven. To the eaſtwards of that little Iſland upon the maine land, ſtandeth an Abbey; bring that Abbey right to the eaſt poynt of the haven, which lyeth within the Baers, and ſayle in with it, untill you come thwart of the eaſt poynt within the Baers, and runne in about by it: being within it, there it is wide and broad, you may anchor there before the foreſayd little Iſland in 5 or 6 fathom, there it is at low water 3 or 4 fathom deepe, or elſe men commonly runne in about, by the point, untill they come in the oaze. Blavet.

From the Pennes unto Bell-Iſle, the courſe is eaſtſoutheaſt twenty leagues, but from Groy to Bell-Iſle it is ſouthſoutheaſt five leagues. Bell-Iſle hath at the northweſt end a ſteepe poynt, lying out with a great ſaddle, thereabouts ſtand alſo ſome little houſes, and the end goeth very ſteepe downe.

When as Bell-Iſle lyeth n. n. e. from you, the weſt end sheweth it ſelfe in three parts: the weſtermoſt where of is a great rock, which floweth at a very high water allmoſt under, at the eaſt end there divideth it ſelfe off alſo a great rock: by theſe foreſayd marks it is indifferent well to be knowne, men may ſee Bell-Iſle out of the ſea in 55 fathom. At the ſ. ſide lye off many rocks & little Iſlands. Road to know Bell-Iſle

If you will ſeeke a roade under Bell-Iſle, then you muſt give the northweſt end a good birth, off from it lyeth a ſuncken rock under water, a good wayes from the land: being come within it, ſayle then within two Cables Road under Bell-Iſle

lengths

lengths alongst by the land, within a Base shot about by the north poynt, untill you come before the village with the little sharpe Tower, called Pauls, there standeth a castle upon the poynt to the westwards of the foresayd little Tower, anchor within that poynt in nine or ten fathom, there you shall lye landlockt for a south, southwest and northwest wind. If it blow more northerly, you must shift, and runne before the east end (which is about halfe a league broad) and anchor there in ten or eleven fathom. This Island lyeth about southeast and northwest according as the winde bloweth, men doe shift there from one road to another, it is there every where good riding.

Within the Island Bell-Isle, to wit, betwixt Bell-Isle, and the maine land lye many little Islands, where at divers places men may sayle through to the Rivers of Vannes, or Morbeam, Roche Barnard, & the river of Nants, called the Loire. Of these Islands are three the principall, the
Cardinall. eastermost is called the Cardinall, the east poynt where of, and the east poynt of Bell-Isle lye one from the other direct east and by north, and w. and by south about 4 leagues. The middlemost is calleth by some also the Cardinall, or else together with the eastermost the Cardinalls. This hath a good Haven on the north side, going in by a great
Sand-banck. Rock. From the n. w. poynt of the northermost, runneth a sandy strand unto the maine land, against the poynt betwixt Blavet & Morbeam, so that men cannot sayle there betwixt that and the maine, but at high water it is most covered, and at low water it lyeth most dry, at low water men may goe over there on foot from the Island to the maine land.

He that commeth from the west, and is bound to Morbeam, Roche Barnard, or other places thereabout, must run to the southwards of it, if he will not sayle about to the southwards of Bell-Isle, he may sayle through betwixt the northermost and the middlemost Island, and also he may sayl through betwixt Bell-Isle and the foresayd Islands, about to the eastwards of the Cardinall. The channell there betwixt them both, is above a league broad and cleane, it lyeth through e. s. e. and by east, men may run alongst by the Cardinals either by night or by day in 8, 9, and 10 fathom, all cleane sandy ground.

For to sayle through betwixt the westermost, which is fast at the north end with the strand to the maine land, and the middlemost Island, the course is from the n. w. end of Bell-Isle e. n. e. A little from the east end of the foresayd westermost Island, lyeth a great round rock, which you must leave on the larboard side, & run alongst by it, within two or three Cables lengths, and then you shall leave on the starboard side to seawards of you a great many rocks, some above & some under water, which lye towards the other Islands, which you must give a greater birth to, then to the foresayd great rock. From this foresayd channell to the river of Morbeam, or S. Jolms, the course is n. e. or n. e. and by e. or els if you run about to the eastwards of the Cardinall, and are bound to Morbeam, then goe away from the east poynt of the Cardinall first n. w. and n. n. w. and you shall have then in that fareway 8, & 9, fathom depth, goe then by little and little more northerly right with the poynt, which lyeth to the westwards of S. Jolms, there runneth off the sayd poynt of S. Jolms, a ledge or riffe of rocks allmost a halfe league in to the sea, which you must give the west poynt a birth to, and run in alongst by the east shoare which is flat, and lieth from the Tower of S. Jolm to the River of Vannes n. w. & s. e. but you must be sure to reckon your tyde well in this Channel, for it runneth in and out the River of Vannes so strong that you cannot sayle in with an ebbe, although it blow a storm, likewise doth it to the contrary with the flood, therefore you must sayle in there with a still water. At the middle poynt where the river doth devide it selfe in two (whereof the one runneth to Vannes, & the other, to Auray) lye many rocks, the most part under water, which you leave on the starboard side when you are bound to Morbeam or Auray, and on the larboard side when you are bound to Vannes when you are come from so far within, that the Tower of Morbeam is w. from you anchor there in the middlest of the haven, in 9 fathom, and then shall Auray the innermost little Tower lye n. n. w. from you, & the other little Tower north and by e. but the poynt of Mayland e. s. e. The west shoare thwart of it is very steepe, oasie and soft, you can take no hurt of it, although you sayled right against it.

The east poynt of the Cardinall, and the entring of the Haven of Morbeam lye northnorthwest and s. s. e. one from the other.

Of the Tydes and courses of the Streames.

Without Ushant a westsouthwest and eastnortheast Moone, and within the Trade a southwest & by west Moone maketh full sea.

At S. Matthewes poynt, a southwest and northeast Moon maketh highest water.

In the broad Sound, betwixt Ushant and the Seames a w. s. w. and e. n. e. moone maketh the highest water: The flood falleth very strong upon Ushant, and to the southwards of it through the Mullens. Thwart over the Trade, towards the Backovens. Likewise in through the Broad Sound unto Brest. Also alongst by S. Matthewes poynt towards the Fourne, or Backovens, with great rippeling. He that commeth sayling about Ushant, must reckon thereupon.

In the Race of Fontenay a southwest and by south, and northeast and by north moon maketh full sea. The flood falleth very strong trough betwixt the Keyser, somwhat thwart over towards the Lavender, with very great rippeling over the Calfe, (that is the ledge of Rocks, which lyeth off from the Lavender) & from thence forth north, and north and by west inwards to S. Matthewes point: With calms men must take very good heed not to be miscaried away with the current. With stormy weather out of the north or south, it is not without danger to come in this channell, especially with an ebbe or out-fall.

On these coasts of Britaigne, and the Islands thereabouts, a southwest and n. e. Moon maketh the highest water: but within the havens, rivers, indraughts, & bayes, a s. w. and by w. and n. e. and by e. Moone, or a poynt later, according as the havens or rivers doe lye deepe in the land. Men doe not reckon there any setting or running of the streames, for the flood commeth (through the swelling of the great Ocean) right against the coasts, and so runneth onely into the havens, the Ebbe contrariwise goeth thwart from the shoare to seawards, when it falleth soo that men cannot perceive any course off streames except it bee a little through, or about some points off Islands.

On these lands, as on all the coast of Britaigne, a n. e. and southwestmoon maketh high water, and within the havens, rivers and indraughts, a poynt or two later, according as they lye far within the land.

On the Coastes and Islands a s. w. and northeast moone maketh high water, within the Haven & Rivers a point or two later, according as they lye farre within the land.

Of the Depths about these place, and in what depths men may see the land.

The Backovens, or the land of the Fourne men may see in 50 fathom.

Ushant being about s. from you, you may see in 50 fathom.

Southwest from Ushant 5 or 6 leagues of it is deepe 75 fathom, and then you may see the land from the poop.

In the Broad Sound it is 45 fathom.

A little without the Seames, about a league, it is deepe 50 fathom.

Men may see the Seames and the Sheetes, or Slaeplakens in 60 or 65 fathom.

Betwixt Ushant and the Seames in the fareway it is deepe 55 fathom.

Thwart of the Pennes and the Glanons men may see the land in 55 and 60 fathom.

Bell-

Bell-Iſle men may ſee from below in 55, but under the top in 60 fathom.

How theſe landes doe lye one from the other, and from other lands.

From the Fourne to S. Matthewes poynt ſ. ſ. e. and ſ. e. and by ſouth 4 or 5 leagues.
From S. Matthewes poynt to Croydon, or Claeſdowne e. ſoutheaſt 3 leagues.
From S. Matthewes poynt to the Race of Fontenay, or the Keyſer, ſouth and by eaſt 6 leagues.
From Uſhant to Portland northeaſt 53 leagues.
From Uſhant to the Steart northeaſt and by north 39 or 40 leagues.
From Uſhant to the Lizart north 29 leagues.
From Uſhant to Silly north weſt and by north and n. n. w. 34 leagues.
From Uſhant to Cape Cleare in Ireland northweſt 78 leagues.
From Uſhant to the Iſland of S. Michaels, ſ. w. and by w. 360 leagues.
From Uſhant to the Cape Finiſterre ſouthſouthweſt weſterly 121 leagues.
From Uſhant to Ciſarga ſouthſouthweſt 110 leagues.
From Uſhant to Cape Prior ſ. ſ. w. 105 leagues.
From Uſhant to C. de Pinas ſouth 93 leagues.
From Uſhant to Laredo ſ. ſ. e. 104 leagues.
When men ſail away ſ. and by e. from Uſhant, then they run a little without the Seames.
From the Race of Fontenay to the Pennes ſoutheaſt, ſomewhat eaſterly 10 or 11 leagues.
From Fontenay to Oldyarne e. ſ. e. 7 leagues.
From Oldyarne to the Pennes ſoutheaſt and by ſouth, five leagues.
From the weſt end of the Seames to the Pennes e. ſ. e. & by eaſt 13 leagues.
From the Seames to the Band or Craghe of Oleron ſ. e. and by eaſt 68 leagues.
From the Seames to the Bayon in France ſoutheaſt ſomewhat ſoutherly 102 leagues.
From the Seames to S. Sebaſtians ſoutheaſt and by ſouth 102 leagues.
From the Seames to Bilbaw ſouthſoutheaſt, eaſterly 96 leagues,
From the Seames to Saint Andero ſouthſoutheaſt, 92 leagues.
From the Seames to Cape de Pinas, or Tores, ſouth 81 leagues.
From the Seames to Ribadeus ſ. & by weſt 89 leagues.
From the Seames to Cape de Ortegall ſouthſouthweſt, ſoutherly 84 leagues.
From the Seames to C. Finiſterre ſouthweſt & by ſouth, ſoutherly 112 leagues.
From the Seames to Silly, Northnorthweſt, five and forty leagues.
From the weſt Pennes, to the eaſt Pennes or Glannons, eaſt ſoutheaſt 6 leagues.
From Glannons or Gloyland to Groy, eaſt and weſt, nine or 10 leagues.
From the eaſt end off Groy to the weſt end of Bell-Iſle, the courſe is ſouthſoutheaſt 5 leagues.
From Glannons, or Gloyland, to Bell-Iſle, ſ. e. an by e. ſomewhat eaſterly 13 or 14 leagues.
From the northweſt end of Bel-Iſle to the ſoutheaſt end, the courſe is ſoutheaſt and by eaſt 5 leagues.
From the Weſt Pennes, to Bell-Iſle eaſtſoutheaſt 21 leagues.
From the eaſt end of Bell-Iſle to the eaſt end off the Cardinall eaſt and by north 4 leagues.
From the eaſt poynt off the Cardinall, to the entring off Morbeam n. n. w. 4 leagues.
From the weſt Pennes to Viverus ſouthſouthweſt 84 leagues.
From the weſt Pennes to Syſarga ſouthweſt and by ſouth 102 leagues.
From Groy to Viverus, ſouthweſt and by ſ. 90 leagues.
Prom Groy to Cape de Finiſterre, ſ. w. 123 leagues.

Heights.

Uſhant lyeth in	48 degr. 30 min.
The Seames lye in	47 degr. 58 min.
The Iſland Bell-Iſle lyeth in	47 degr. 5 min.

How theſe Lands doe ſhew them ſelves at Sea.



When Uſhant is ſouth and by weſt from you 4 leagues, it ſheweth it ſelfe in this forme.



Uſhant, being ſ. and by e. from you 4 leagues, ſheweth it ſelfe thus.



Thus ſheweth Uſhant, being ſ. e. from you 4 leagues.



Uſhant, being ſouth and by eaſt from you 3 leagues, ſheweth it ſelfe thus.



Uſhant, being eaſt from you 2 or 3 leagues ſheweth it ſelfe thus.



Thus ſheweth the Sheets, or Slaeplakens, with the Pennes, as you ſayle alongſt by them, and that they are about 4 leagues thwart from you.



Uſhant, being eaſt by ſouth, and e. ſ. e. 3 or 4 leagues from you, ſheweth it ſelfe in this forme.



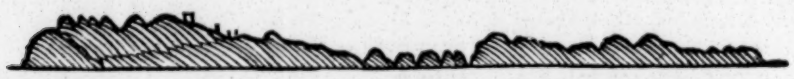
Thus ſheweth Uſhant, when it is eaſt and by ſouth from you foure or 5 leagues.



When Uſhant is 4 leagues eaſt from you, it ariſeth in this forme.



Uſhant being e. n. e. and by e. from you 5 leagues ariſeth thus.



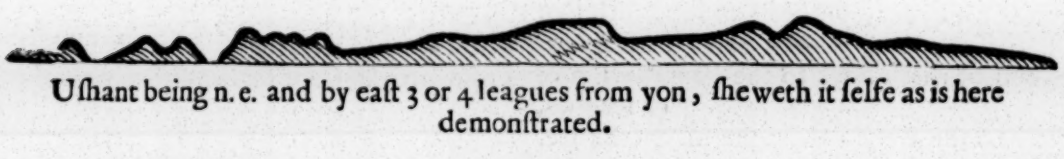
Uſhant being e. n. e. from you 2 or 3 leagues, ſheweth it ſelfe thus.



Uſhant being e. n. e. and by e. from you, ſo farre as you may even ſee it from below, ariſeth in this forme.



When Uſhant is northnortheaſt from you, it ſheweth thus.



Uſhant being n. e. and by eaſt 3 or 4 leagues from yon, ſheweth it ſelfe as is here demonſtrated.



Thus ſheweth the land betwixt the Pennes and the Glannons, when it is n. e. and by e. 5 or 6 leagues from you. This hill is very eaſy to be knowne, it overtoppeth in height all the land thereabouts. The Pennes are then n. n. weſt from you 4 or 5 leagues.



Thus ſheweth the land of Glannons, when you ſayle alongſt by it.



The land to the eaſtwards of Gloyland or Glannons ſheweth thus, when you ſayle alongſt by it.



Groy, being e. n. e. 5 leagues from you, ſheweth it ſelfe in this forme.



Groy, being north e. from you ſheweth it ſelfe in this forme.



Thus ſheweth the w. point of Groy, when it is three or foure leagues northeaſt frou you.



Thus ariſeth Bell-Iſle, when the n. w. end is eaſt from you 4 leagues.



When Bell-Iſle is northeaſt from you 4 leagues, it ſheweth thus.



When Groy is northnortheaſt from you 4 leagues, it ſheweth thus.



When the north w. point of Bell-Iſle is eaſt and by north from you 4 leagues, and the ſouth e. point is eaſt and by ſouth, and eaſt ſouth e. then it ſheweth thus: When as you ſayle towards it, and you come neare the land, then the pieces which lye off from the n. w. end, at leaſt come to be faſt unto Bell-Iſle.

De Riviere Loire

Lanan

BRETAIJ

GNE.

PO

Roche Bernard

S. Nabaire

Asserat

Croisick

Pyrs Pourceaux

Pyrs Pris

Out Ilsyn

S. Tobie

Le Four

Pierre mon.

Bonges

Noumonster Abdye

Armenty

Bosch

Picquelier

Candinael

Heis

Boelyns

Dutsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

OIGNE.
van Bretaigne
Rivier van Bour
ax.

I. C. S. A. J. C. T. O. J.

Rochelle
Pon. Maran
Plon
Lyssou
I. Ivrodenes
Oleronois Mole
Kiltaed
Isle
Les Portes
Le Fulcon
Les Baleynes
Porthus
Chauvan
S. Maria
Bancart
S. Denis
S. Pierre
S. Andre
Oleron
I. OLERON
Sables
Meers
Roian
Mammesont
Noorder Esels
Zuyder Esels
Riviere van Bourdeaux
Coubre
S. Nazaire
Soubise
S. Jean d'Angely
Broui
Ryen
Cypre
Tour de Cordouan
Charente
Ile de Rhe
Le Chef de Baye
Le Chapus
Le Chateau
Le Chaume
Le Chaumes
Le Chaumes
Le Chaumes

The ſecond Demonſtration.

Where in is

Contained the Deſcription of the Iſland of Boelin to the River of Bordeaux.

FRom the eaſt poynt of the Cardinall to the River of Roche Barnard, the courſe right northeaſt: there lyet a little Iſlant about halfe wayes betwixt the Cardinall and the foreſayd river or rather nearer the Cardinall then the River (for when men are by the River, they can but even ſee the foreſayd little Iſland) men runne with the foreſayd courſe of northeaſt cloſe alongſt to the weſtwards, of that little Iſland, and ſhall fall a little to the northwards of the river, run then within a Cables length alongſt by the ſhoare unto it, untill that the river doe open it ſelfe, and then ſayle in amids the channell, and give the rocks a birth that lie at the eaſter ſhoare. Being come within the rocks, you may anchor there, or elſe ſayle on againſt the ſhoare on the ſtarboard ſide, and ſo may ſave ſhid and goods without anchor or cable, if there ſhould be ſuch need. At low water with and ordinary tyde, there is about eleven, and with a ſpring nine foot water; with an ordinary tyde it flowet there about a fathom, but with ſpring 2 fathom up and downe: the entring of the river lyeth in eaſt & by ſouth. A little to the eaſtwards of the rivers mouth, lyeth a great rock which at high water is covered.

He that commeth from the River of Nantes, and is bound to Roche Barnard, & is not well acquainted there betwixt both, let him runne ſo farr to ſeawards of the Cardinall (when hee is to the weſtwards of the Four) untill that hee run about a ſeaboard of that foreſaid little Iſland, (lying halfe wayes betwixt the Cardinal & the River of Roche Barnard) then goeth he ſurely cleare of all the foule ground and other dangers, men may ſayle cloſe alongſt by it to the weſtwards, but to the eaſtwards, of it lye many Rockes and ſhoals.

Hee that will ſayle alongſt to the eaſtwards or to the n. wards of it, muſt leave about 2 third parts of the water to the Iſland, and one third part towards the land, & ſo runne trough betwixt them, but muſt looke out well.

Betwixt the rivers of Roche Bernard and Nantes, lieth Old-downes, Croiſill, or Croſwyck, and Poelgem.

Croſwyck. Croſwyck hath two poynts, within the northweſt poynt lyeth the great village of Croſwijck, which hath a thick tower, & there is a great indraught like a haven, where men may goe to anchor in five, ſix or ſeven fathom: to the weſtwards of it ſtandeth alſo a flat Church upon the high land. The land of Olddownes lyeth a little to the northwards of the Church. Poelgem is a village to the eaſtwards of Croſwyck, with a high ſharpe Tower.

Olddownes.

About two leagues from the land ſouthweſt and by ſouth from Croſwyck, and weſt and by ſouth ſoutherly from the e. point of Poelgem, lyeth a great bank, called the Four, which at ſome places falleth dry at low water, & lyeth from Bell-Iſle near about eaſt & lyeth the longeſt way ſouthweſt and northeaſt.

The Four.

If you will ſayle from Bell-Iſle to the river of Nantes, then goe away from the eaſt end of the Cardinall, or from the aſtermoſt rocks that lye of from the Cardinall, directly e. n. e. towards the weſt poynt of Croſwyck, for to ſayle a weather of the foreſayd Four, ſo long untill it begin to ſhoale, and that the ſharp Tower of Poelgem commeth againſt the higheſt of the eaſt poynt of Croſwyck, then you runne alongſt to the northwards of the foreſayd banck, goe then e. ſ. e. or according as the wind is eaſt & by ſouth, & e. ſ. e. unto the Rock with the hole, called Pierre-perce, but ſo that you come not very neare (at low water) the land ſomwhat to the weſtwards of Poelgem, for it is not cleane alongſt by it. Betwixt the Foure and the point of Croſwyck it is in the fareway 8, 9; and 10 fathom deepe.

For to run into the River of Nantes.

Pierre-perce.

From the poynt of Poelgem eaſtwards lye ſomme little Iſlands and Rocks, which are very foule, come not very neare them, nor the ſhoare thereabouts. If it ſhould happen that you ſhould turne to windwards, for at low water there falleth many of the rocks dry; (when you come neare the rock with the hole) then run alongſt to the northwards of it, and run in very cloſe by it, leaving it on the ſtarboard ſide of you for to avoyd the foule grounds, which lye off from the poynt of Poelgem towards this rock. Cloſe alongſt by this rock it is foure fathom deepe. Being paſt this Rock with the hole, then runne all alongſt by the north ſhoare, unto S. Nazare in three or foure fathom at low water, but you muſt take heed of a rocky poynt, ſomewhat to the weſtwards of S. Nazare, the markes there of are theſe: There ſtandeth a mill upon the high land, ſomewhat farre within the land, when that commeth over a countrey-mans houſe, which ſtandeth below by the river, then ary you thwart of the rocks, being paſt them, keep yet the north ſhoare, and runne alongſt by it, untill you come within the poynt of S. Nazare, and anchor there in 6 or 7 fathom. In the middeſt of the river betwixt the foreſayd rocks with the hole, and S. Nazare, lyeth a rouw of Rocks, called Les Porceaux, theſe come at halfe tyde above water: Becauſe of them, & alſo more other ſhoals, lying in the river, you muſt run all alongſt by the north ſhoare, as is before ſayd.

S. Nazare.

Les Porceaux.

Somewhat within S. Nazare upon the north-land ſtandeth a ſharp Tower; when that commeth without the ſouth land, then you cannot take hurt of the foreſayd rocks, run alongſt to the northwards of them, a little to the eaſtwards of them lyeth another ſhoale of Rocks, where men may run about the eaſtwards of it with great ſhippes, it is there very ſhoale water alongſt to the poynt; being within the poynt, men may anchor, as is ſayd, in 6 or 7 fathom. To the eaſtwards of Saint Nazare lye two other villages, and there betwixt the Villages it is very ſhoale, and ſtony ground, there men muſt borrow over the ſouther ſhoare, buth when you are halfe wayes to the eaſtermoſt Village then you may well ſayle right on with the poynt of the Village, untill you be paſt it, but againſt that eaſtermoſt Village on the ſ. ſide, upon the poynt, lyeth a banck, called Pynbut, which lieth at leaſt halfe wayes over in the River, but men may run through betwixt the poynt and this bancke in 5 or 6 fathom, this is the road for ſhippes that are bound out to ſea.

Pynbut.

A leagues further in, in the middeſt of the river lie two ſtony banks in the fareway. At Pelerin is the lading place, 2 leagues from Nantes, where the good are brought off with Lighters from the ſhips, but from S. Nazare to Nantes, or Pelerin, it is Pilotswater, which men do commonly take in, by the above named ſharp Tower, called S. Nazare, where men (when they are within it) may anchor in 10, or 12 fathom, and ſtay for a Pilot.

Pelerin.

S. Nazare.

For to run into ſea from S. Nazare, alongſt to the ſouth wards of the rock with the hole, you muſt run firſt alongſt by the north ſhoare, as is before ſayd, untill that you come without the ſecond poynt of the River, edge then off from the north land to the middeſt of the River, and ſayle a good wayes about to the ſouthwards of Pierre-perce, when as you can ſee the Rocke (which lieth to the northwards of Pierre-perce) without the poynt, there it is deepe 4 fathom & a halfe, and when as Pierre-

perce in n. n. weſt, and north and by weſt from you, then you come thwart of the Rock, and there you finde deeper water, to wit, 5, 6, and at leaſt 7 fathom, but when you come in the fareway of Pickeliers, then you get 10 or 12 fathom water.

Banks before the Loire. Before the River of Nantes lye many bancks, but at half flood men goe over them, the ſouth poynt of the River of Nantes lyeth from the North poynt North-northweſt and ſouthſoutheaſt 4 leagues aſunder, to the ſouthwards of it, the land lyeth in with a great indraught, and there men doe run into the Bay. Theſe uneven banks in the River of Nantes, are very unlike, ſometimes men ſound in 15 fathom, & preſently afterwards but 7 or 8 fat.

Armentiers. But to ſayle from Bell-Iſle to the Bay or Armentiers you muſt goe e. ſ. e. untill that you ſee thee Abbey of Armentiers to the eaſtwards of the trees, which ſtand within the land over the ſame Abbey, then goe on e. and by n. ſo long untill that the Abbey come within the caſtle of Armentiers, then are you within the Moncks legge. Goe then

Pierremen. againe e. ſ. e. untill that you bee within the rock of Pierremen, you may goe about it on both ſides, and when that you can ſee the Grave open, then you may anchor in 7, or 8 fathom, and row a ſhoare to fetch a Pilot, it is Pilots water. From Bell-Iſle to Armentiers, the courſe is eaſtſoutheaſt about 12 or 13 leagues aſunder.

From Armentiers to Uſe, or Heys, it is ſouth and by eaſt 7 leagues, and from Bell-Iſle to Uſe or Heys, ſouth-

Pickeliers. eaſt 16 leagues. The Iſland of Pickeliers lyeth right before the poynt of Armentiers. Betwixt Armentiers or Pickeliers and Uſe, it is an uneven fareway, with many ſhoa-

Heys or Uſe. les and banks from 4, 5, 6 and 7 fathom. Upon Uſe ſtandeth a ſharp tower and ſome little houſes or mills, whereby it is very eaſy to be knowne. It is in the fareway betwixt Uſe and Bell-Iſle 35, and 40 fathom, but when men are within the fareway, is is 25 fathom deepe.

Under Uſe it is not very good riding the ſea commeth alwayes ſo rowling in, as if the water came through under the Iſland, at the northend it is ſhoale water, the road is, when the Church ſteeples is ſouthweſt from you, in 8 or 9 fathom, but men lye there not ſheltred but onely for a ſouth weſt and w. ſ. w. winde, and it doth ripple there allwayes very much.

From Uſe to the Killiats, or to the Iſland of Saint Martens, the courſes is eaſtſoutheaſt twelve or thirteene leagues. Betwixt both lyeth the Baerges of Olone about halfe a league off from the land of Poictou, and eaſt and by ſouth ſeven leagues from Uſe in the right fareway, and in regard that it is nothing but Rocks and ſtones, therefore it is not good to come neare them in darke weather, men may ſayle round about them, and at low water they are uncovered. If you will ſayle from Uſe unto the Killiaets, or unto the tayle of Aiſe, through within the Barges, then ſayle on firſt eaſt, and being within the Baerges of Olone, ſayle to the land of Poictou, which lyeth from Olone to Saint Martens Iſland eaſtſoutheaſt, and from Olone to the Pickelliers northweſt.

For to ſayl into the Killiats. From Olone to the Killiaets the coaſt lyeth moſt eaſtſoutheaſt foure or five leagues. For te ſayle into the Killiaets, which is in alongſt to the northwards of the Iſland of S. Marten, in betwixt the foreſayd Iſland and the mayne land of Poictou, you muſt goe in ſomewhat northerly then the middle of the channell, or leave two third parts of the channell towards S. Martens Iſland, and one third part towards the mayne land. Alongſt by the Iſland of S. Martens it is uneven, and ſomewhat full of banks; come not too neare alſo the mayne land, for there lye off alſo ſome banckes, but you may borrow of them by your lead. Goe in alongſt, as before is ſayd, untill that the

Marks of the banck before S Martens. Church of S. Martin be ſouthſouthweſt from you, then you ſhal bee paſt the banck which lieth north from S. Martens, and lyeth of from the ſhoare ſomewhat to the weſtwards of Saint Martens, there is, a hard ſteepe ſtony banke; which ſhoaleth op ſuddenly. For to avoyd it when as you muſt turne too and againe with an eaſterly, or a northeaſt winde, you muſt not bring the little Tower of Hars in the Village of Loy, but when the little Tower of Hars commeth to the firſt, or northermoſt houſe of Loy, then you muſt caſt about, for then you come againſt the banck, where remaineth at low water about a fathom depth, and at high water about foure fathom. When the foreſayd little Tower of Hars commeth againſt a mill which ſtandeth at the ſouth end of Loy, then are you within the Banke, to wit, betwixt the Bancke and S. Martens. Wen S. Martens commeth to be ſ. w. and by ſouth, and ſ. ſ. w. from you, then you may boldly ſayle over the end of the bank towards S. Martens, you ſhall finde there at low water and ſpring-tyde at leaſt 3 fathom or ſixteen or ſeventeen foot, alſo one caſt or 2 but 12 foot, then it is all ſoft grund, as alſo before S. Martens, but the banks are hard, and with ſpring tides there remaineth little water upon then. Before S. Martens you may anchor in 4, 5, or 6 fathom.

For to anchor before S. Martens. For to anchor before S. Martens, you muſt anchor ſo, that you may ſee open into the haven, and that the point of the Abbey, and the Boſſe doe ſhand the length of two capſtane bars one from the ohter, there is with ſpring tides at low water three fathom and a halfe, but at high water ſix fathom and a halfe deepe.

When you ſayle into the Killiats, as before is ſayd, it is 12, 11 and 10 fathom deepe, but being come ſo farre that the Tower of S. Martins beginneth to ſtand ſ. w. from you, there it will be by little and little ſhoaler, and then you may well edge towards the Iſland in five and foure fathom, it ſhoaleth then ſuddenly up, and will be from ten, quickly five, and foure fathom.

If you will goe over the banck that lieth off from the Abbey with a ſhippe that draweth much water, then you muſt ſtay ſo long that it be halfe flood, for at low water there remaineth no more upon it then three fathom, or a foot or two more: when it is ſomewhad flowed, then you may well goe over with a great ſhippe. When the little tower of Huſſou commeth to the north end of the Iſland Urck, or Tivalenes, then are you upon the ſhoaleſt of the banck, but when the little Tower commeth over the ſouth end of that little Iſland, then it beginneth to deepen againe.

The markes for to keepe the deepeſt water, when you run over the bank are theſe keep the great Tower of Rochel a handſpikes length to the ſouthward of the wood of trees, which ſtandeth upon the northermoſt high land, and run ſo over the banck, it is there all ſoft ground.

If you will anchor before the Abbey within the banke, then run in 6 or 7 fathom and anchor there.

But if you will not anchor under S. Martens, but wil ſayle forth towards Burnt Iſland, then bring that foreſayd little tower of Luſſou over the little houſe that ſtandeth upon the little Iſland Urck, & keep it ſo ſtanding, & then you can take no hurt of the Laverdyne.

Laverdin. The Laverdyne is a rane of rocks together a muſket ſhot long, which lieth off from the eaſt point of S. Martens Island, about an Engliſh mile, and with ſpring tide at low water is uncovered. Betwixt it and the Island of S. Martens men may ſayle through, there is depth enough. The markes of the Laverdyne are theſe: When cou come in at the Killiats, and ſayle through betwixt S. Martens Island & the Boſſe, & you come to ſee the great Tower of Rochell even without the point of the Boſſe, then are you right thwart of the Laverdyne, which lyeth then ſ. w. from you, it is there betwixt them both not very wide: or elſe when the foreſayd great Tower of Rochell ſtandeth even without the poynt of Boſſe; and the North poynt, of the Plom a ſhips length without the ſouth poynt (which is the north poynt of the Boſſe) then are you right upon the Laverdyne, therefore when Rochell commeth a ſhips length to the ſouthwards of the Boſſe (when you come in at the Killiats) then are you paſt the Laverdyne, and you may boldly goe on ſ. e. and ſ. e. and by ſouth towards Burnt-Iſland.

Porthus is a broad and wide channell, lying in through betwixt S. Martens Island and Oleron, and lyeth from Porth.

Uſe

Uſe ſ. e. & by e. diſtant about 15 leagues. If you will ſayle into Porthus, then run in betwixt both lands e. ſ. e. but much nearer S. Martens Iſland, for to avoyd the banck of Oleron, which is a foule ledge of rocks, at the n. end of Oleron, come no neare it by night then in 12 or 13 fathom.

When you come then by the eaſt end of S. Martens Iſland and are bound to Rochell, or elſe will anchor under the Boſſe bring the great Tower of Rochel a ſhips length without the Boſſe, ſo you can take no hurt of the Laverduyn. You may anchor under the Boſſe in 5 or 6 fathom ſoft ground, ſo that the poynt doe lye north from you. Or elſe if you will anchor under the Abbey of Saint Martens Iſland, then run in upon the foreſayd marks, ſo long untill that the foreſayd Abbey come without the ſ. poynt of the ſame Iſland, ſayle then right with it and then you ſhall leave the Laverduyn far enough on the larboard ſide of you. And being come neare the Abbey, anchor a little to the eaſtwards of it in 5, 6, or 7 fathom, there is the road for ſhips that are bound out.

When you goe into Porthus, and will ſayle to the Burnt Iſland, then runne in (as before is ſayd) untill you come neare the eaſt end of S Martens Iſland: thence the courſe is ſouth eaſt, and by eaſt, or from the Boſſe ſouth or ſouth and by eaſt, or with a weſterly wind ſouth and by weſt unto that Iſland.

When you ſayle ſo neare Burnt-Iſland that the Tower of Voorn, or the Four, commeth over the Burnt Island, there you may caſt your ballaſt over board, it is there 12 fathom deepe.

If you muſt turne to and againe with a ſoutherly wind from the Boſſe to the Burnt-Iſland, or from Burnt Iſland to the Boſſe, then come not to neare the land of Rochell, there lye divers ſtony banckes alongſt the land, a good wayes from the ſhoare, where of you muſt take heed. When Rochell is hidden behinde the ſouth poynt which lyeth over againſt the Creecke, there lyeth a ſtony bancke, upon which remaineth not a fathom of water.

If you will ſayle into the river of Sherrant, then runne about to the ſouthwards of Burnt-Island, you may alſoo ſayle about to the northwards of it, and ſayle in by the Tower of Voorn, or Four. At low water this river falleth dry, at leaſt 4 leagues within the land For to ſayle from Burnt-Island to Burwage, you muſt ſayle away ſ. ſ. e. & keepe the little. Tower of Heers to the weſtwards of the wood, ſo long untill the tower of Voorn or le Four, come over the little red-tyled houſe, that ſtands upon the ſ. ſide of the River of Sherrant, ſayle then in ſ. e. and by little & little ſ. e. and by eaſt untill that Pront (a village that lieth upon the ſtrand) commeth to the n. wards of Soubiſe, when as then Soubiſe cometh within the foreſayd village, and the mill above the village, then you ſhall be againſt the poynt of Oyſterbanck: goe then in alongſt ſ. e. & by ſouth, and bring that outermoſt little Tower of Heers, over the outermoſt ſandy plate, where the gallowes ſtandeth by, keep them ſo ſtanding, and ſayle in ſ. ſ. e. when as then the little Tower of Heers commeth to the eaſt ſide of the valley, which is in the wood, then keepe that ſharpe little Tower right over the eaſt ſide of the valley of the wood, and ſayle in ſo into the Creecke, or river of Burwage. At Burwage was wont not to ſtand a houſe, where now is a ſtrong faire Towne, being builded ſo within 70 or 80 yeares paſt.

The Bannier lyeth alongſt the land of Oleron, and lyeth untill within Burnt-Island, at low water it is uncovered, and the tayle of it lyeth farre to the northwards. If you ſhould turn out from the Creek towards the Burnt-Iſland, then bring the Tower of Rochell not without the Burnt-Iſland, before you come thwart of it, becauſe of the Baniard, & then you ſhall take no hurt of it.

At the ſouth end of Oleron, betwixt Oleron and the land to the ſouthwardes of it, is yet another channell, where men may ſayle in and out, called the Mammeſound, deep enough for great ſhips, it lyeth in from out of the ſea eaſt and by n. being come there within, there runneth up a river ſoutheaſt towards Sales, where men doe lade ſalt, being paſt that, to the other poynt of the Mamme-ſound, lyeth a place, where of men runne to the northwards upon theſe marks: you muſt keepe the mill that ſtandeth upon the lands of Oleron over the trees (& ſo you ſhall runne to the northward) off the plate, there is the road for them that will lade ſalt at Oleron or Olderdon. Mammeſound.

But if you will runne in through, and out againe, then you muſt ſayle ſo farre to the eaſtwards, untill that Sales come over the trees, which ſtand within Merven, for to avoyd the tayle or riffe that ſhooteth of from Oleron: when Sales commeth over the trees, ſayle then north and by weſt on, the Burnt-Iſland, but bring Duke Charles Tower to the ſ. wards of the Burnt-Iſland, for not to ſayle within the Banniard. When the little Tower of Heers commeth to the wood, keepe it then ſo ſtanding untill Rochel commeth over the north ſide of the Burnt-Iſland, ſayle then out at the Portruſh. There ſhooteth of alſo a riffe from the weſt-end of Saint Martens Iſland, where of you muſt take heed. Riffe at S. Martens Island.

Abouth ſouth, or a little more weſterly, thirteene leagues from the Island Uſe, ſouthweſt and by weſt from the Island S. Martens, and w. n. w. or ſomewhat more northerly from the River of Bordeaux, lye the Rockes of Rockedon, or Rochebon, of ſome called Urkamia, in forme of a Trevet or Brandize. The ſouthermoſt of the three is the ſhoaleſt, whereupon remaineth at low water about 2 fathom depth: At the ſoutheaſt ſide the ground is black little ſtones, and at the northeaſt ſide white ſand, but you may not come neare them by your lead ſound by them. Rock of Rochebon.

A little to the weſtwards, not farre from the foreſayd rocks, lyeth yet another rock, where upon is at low water 5 fathom water, nevertheleſſe with a ſtorme the ſea breaketh terribly upon it.

Of the Tydes and Courſes and Streames.

Upon all theſe a foreſayd places, as likewiſe over the whole bending of the French Coaſt, as alſoo before the River of Bordeaux a ſouthweſt & north e. moone maketh the higheſt water.

Of the Depths about theſe places, and in what depths men may ſee the land.

Bell-Isle men may ſee from below in 55, but under the top in 60 fathom.

Without Uſe it is 25 fathom deep, and then men may ſee the land from below: when it is cleare weather men may ſee it in 60 fathom.

Weſtſouthweſt from Uſe about 9 leagues you ſhall find 45 and 46 fathom, the ground is full of fine ſmall ſtones as greate as courſe ſand and verry ſteepe.

The land of Olone men may ſee it from below in 25 and 30 fathom.

S. Martens Island and the north end off Oleron men may ſee in 28 and 30 fathom. When men get ſight off S. Martens Island, they ſhall ſee upon it a high Tower, with a high houſe, and upon the ſtrand a mill with foure or five high ſand-hills. Upon Oleron men ſhall ſee a high ſpire Tower upon a red poynt, where men ſhall ſee ſome trees ſtand over it and to the ſouthwards of it, is at 2 or 3 places ragged ſandhills.

How theſe lands doe lye one from the other, and from other lands.

From Belle-Iſle to the river of Bourdeaux, ſoutheaſt ſomewhat ſoutherly 47 leagues.
From Bell-Iſle to S. Sebaſtians, ſ. ſ. e. ſoutherly, 75 leag.
From Bell-Iſle to S. Andero, ſouth 71 leagues.
From Bell-Isle to C. de Pinas, or Tores ſ. ſ. w. ſomewhat weſterly 76 leagues.
From Bell-Iſle to Cape de Ortegall, ſ. w. 88 leagues.

From Bell-Iſle to Cape de Finiſterre, ſ. w. 121 leagues.
From the eaſt poynt of the Cardinall to Croſwijck, e. n. e. 7 leagues.
From the poynt of Croſwijck to Pierre-Perce, eaſt ſ. e. 4 leagues.
From the Cardinall to Old-downes, e. n. e. 7 leagues.
From the north poynt of the River of Nantes to the Picqueliers, n. n. e. 7 leagues.
From Pierremen to Armentiers weſtſouthweſt 2 leagues.
From Armentiers or Picqueliers to the Weſt eynd of Uſe, ſ. and by e. and ſ. ſ. e. at leaſt 7 leagues.
From the eaſt end of Bel-Iſle to Uſe, ſoutheaſt eaſterly 16 leagues.
From Uſe to the Barges of Olone, e. and by ſ. 7 leagues.
From Uſe to the Killiates, or S. Martens Iſland, e. ſ. e. 12 or 13 leagues.
From Uſe to Cape de Pinas, ſouthweſt and by ſouth 75 leagues.
From Uſe to Cape de Ortegall, ſouthweſt and by weſt, 93 leagues.
From Uſe to Portruſh, or the Band of Oleron, the courſe is ſoutheaſt and by eaſt 15 or 16 leagues.
From the Band or Craghe of Oleron to the Tower of Cordan ſ. ſ. e. and ſ. and by e. 14 or 15 leagues.
From S. Martins Iſland to the tower of Cordan, or the river of Bordeaux, ſ. ſ. e. 16 leagues.
From S. Martens Iſlands to Cape the Pinas, ſouthweſt, ſomewhat weſterly 80 leagues.
From S. Martens Iſland to Ortegall, the courſe is w. ſ. w. ſomewhat ſoutherly 99 leagues.

Heights.

The Iſland Uſe in 46 degrees. 44 min.
The north poynt of Oleron in 46 degrees. 10 min.

How theſe Lands doe ſhew themſelves at Sea.



Heys, being ſoutheaſt & by ſouth from you, that a man may ſee it from the Compagne, ſheweth out of the Maſſe thus.



Heys, being northeaſt from you, ſheweth thus



Thus ſheweth the Iſland Uſe, or Heys, when you ſayle alongſt by it, being two leagues off from it.



Heys being e. ſ e. from you, and that a man may ſee the tower from Campagne, ſheweth thus, & you are then upon 31 fathom depe

Olone.



Thus ſheweth the Land of Poictou betwixt Heys and the Iſlands of S. Martens, when you ſayle alongſt by it foure leagues a ſeaboard the Land.



This Coaſt lyeth ſouthſoutheaſt.

Thus ſheweth the weſt end of the Iſland of S. Martens.



This belongeth to the former figure from the w. end of S. Martens Iſland, & ſheweth it ſelfe thus, when the ſteeple is e. and by ſouth from you 3 or 4 leagues of, the coaſt lyeth here e. ſ. e. and w. n. w.



When S. Martens Iſland is north and by eaſt from you it ſheweth it ſelfe thus.



When men ſayle out or in at Porthus, S. Martens Iſland ſheweth it ſelfe in this forme.



When the tower of the Iſland S. Marten is e. ſ. e. 3 leagues from you, then the land ſheweth thus.



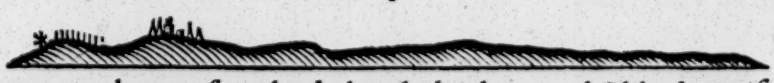
Thus ſheweth the ſouth ſide of S. Martens Iſland, when the Tower or w. end is north, and the e. end n. e. three or foure leagues of from you.



The w. poynt of Oleron, or Olderdon, ſheweth it ſelfe thus, when it is e. from you two great leagues. Thereabouts it is twenty fathom deepe.

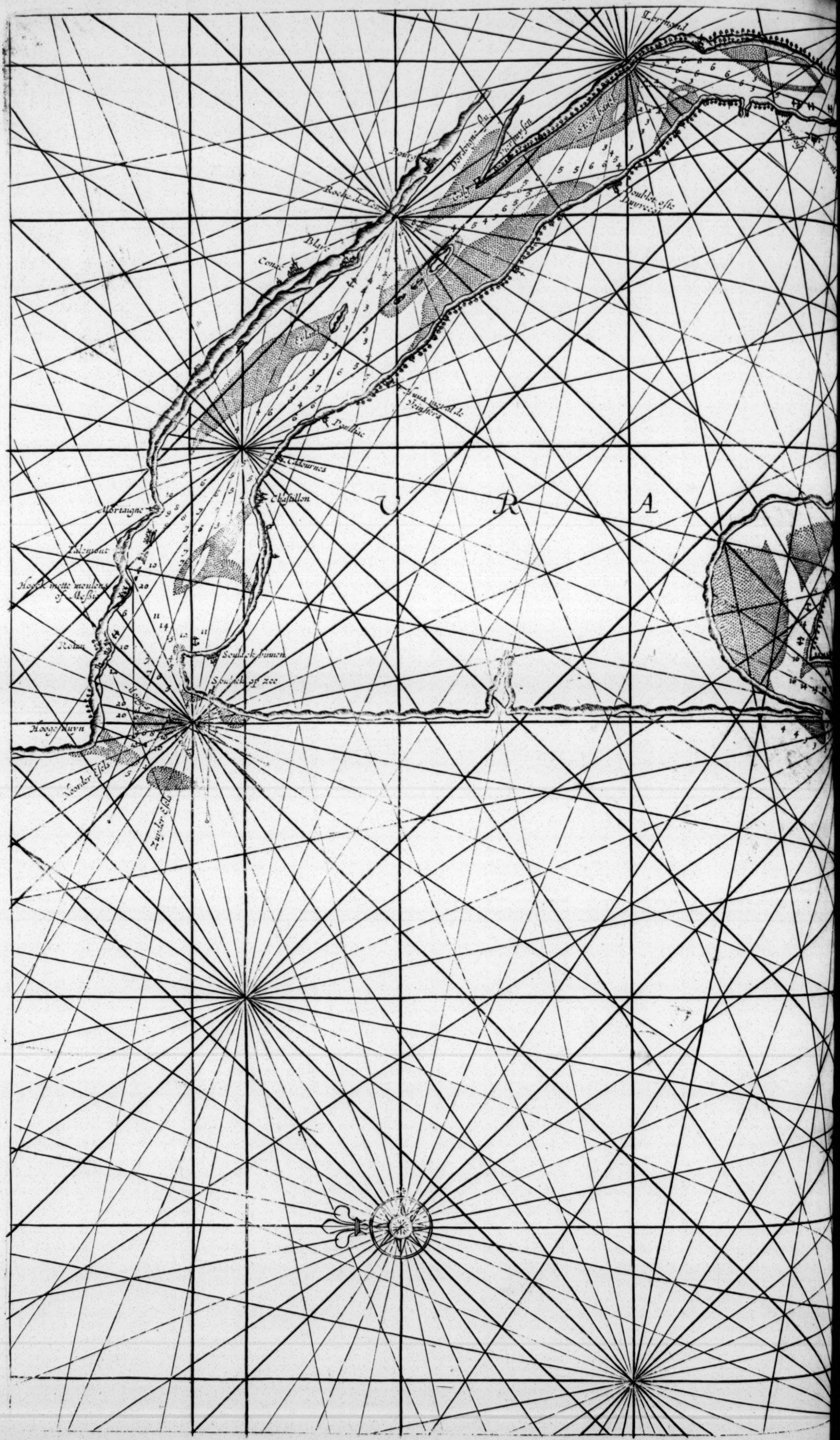


Olderdon or Oleron ſheweth thus, when as you have the trees north by the Tower, which is then ſouth e. from you.



When you are before Porthus, about two or 3. leagues from land, then doth Oleron and Olderdon ariſe in this forme.

The land


Blayc
Conq.
Pouillac
Chastillon
Talemont
Hoogeduyn
Zeeuder Gats
Scuilcke Gat
Scuilcke Zee
Roan
Hoeck ontte meulens
Chastillon

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Caarte
vande Rivier van
BOVRDEAVX
tot aen Bayone, ende voorts
aen Gaboria

C R Y C K

Bayone

S. Iaq. d. Luz

S. Anna

Punas de S. Anna

Puntarrayia

C. Figuer de

Paſſage

S. Sebaſtiaen

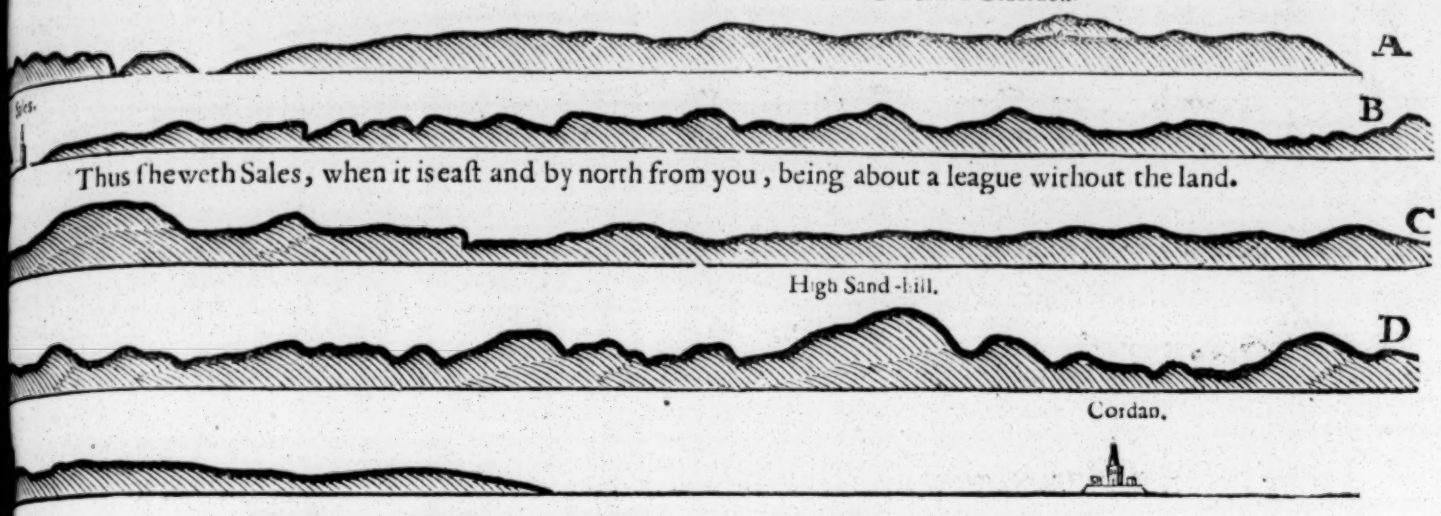
Orio

Comme rede

Gathaya ofte Comme haven

B A S C A I A

The land betwixt Olderdon and the River of Bourdeaux ſheweth (when men ſayle alongſt by it) as is pourtrayed in the ſe 5 following figures, the letters of one ſort belong one to the other, as AA, BB, CC, DD.



The Third Demonſtration.

Which

Contained the Deſcription of the River of Bourdeaux to S. Sebaſtiaen or Coninx reede.

FRom the Band or Crage off Oleron to the Tower of Cordan, or the Pole-head, or the mouth off the River off Bourdeaux, called the Garrone, the land lyeth ſouth ſoutheaſt, and ſ. and by e. 13 leagues.

To the northwardes of the mouth of the river of Bourdeaux, lye five or ſix high white Sand-hills, but to the ſouthwards off it, it is ſomewhat low land, blacke little Sandhilles, being growne with ſpiry graſſe.

From the Tower of Cordan off to the northwards, towards the high Sandhills, which lye upon the north land, lyeth a ſand bancke, called the Piper, men may ſound alongſt by it on the weſt ſide in ſeven fathom, but upon the north-end it is very ſteepe, and not farre off it is twenty fathom deep.

From the north-point off the River runneth off to the ſouthwards, a ſand called the norther Aſſes, and to the ſouthwards of it lyeth another ſand, called the ſouther Aſſes, through betwixt them both, & alſo alongſt to the ſouthwards of them, men may ſayle into the River.

If you will ſayle into the River comming from the northwards, then you may run alongſt by the ſhoale in 12 and 13 fathom, untill that the tower of Cordan ſtand ſoutheaſt and by eaſt from you, runne then right in with it, through betwixt the norther and ſouther Aſſes, untill that the high white ſandhil upon the north point of the River ſtand northnortheaſt from you, men may ſo (comming from the northwards) runne in alſo about by the norther Aſſes, by your lead, untill that the Tower come to be ſouthſoutheaſt, and ſoutheaſt and by ſouth from you, then goe towards the Tower, and when the foreſayd high ſand-hil come to be northnortheaſt or northeaſt and by north from you, ſayle then right in with it untill that you have the ſounding of the land, run then in alongſt by it, towards Meſſie, that is the point where all the mils ſtand. When you ſhall ſaile thus towards the high ſand-hill, and that the Tower of Saulack commeth a great fathom to the northwards of the Tower of Cordan, and the little mill of Royan, then are you alſo paſt the Piper, and may run in right eaſt without feare towards Royan, but you muſt reckon well your tyde, for the flood falleth thwart over the Aſſes towards the Tower off Cordan, and the ebbe in the contrary.

In this foreſaid channell through betwixt the Aſſes remaineth at low water 3 fathom water upon the ſhoals.

For to ſayl into the River alongſt to the ſouthwards of the Aſſes, comming from the northwards, (that is, the beſt channell) you muſt do thus: Bring the Tower of Soulacke eaſt from you, or ſomewhat more northerly, and ſayle in ſo right with it untill the tower of Cordan be north and by eaſt, and north northeaſt from you, Royan ſhall then ſtand north eaſt from you, or elſe if you come from the ſouthwards, then bring the Tower of Cordan north and by eaſt, and north n. e. from you, and ſayle in ſo right with it untill Soulack come to be eaſt from you, Royan ſhall then ſtand n. e. from you, ſayle then right towards it, & comming near it, ſayle to the point of Meſſie.

When you are now within the Rivers mouth, and come right againſt the point of Meſſie, that is the point where the Mills ſtand upon, then edge over towards the broken Caſtle, called Chaſtillion, ſouth eaſt and by ſouth, that is, eight leagues from Meſſie, and then forth in alongſt by the ſouth land, ſouth eaſt in unto Pouliack, which is two great leagues. Chaſtillion. Pouliak.

In the fareway betwixt the Piper and the point with the Mills, or Meſſie, it is 10, 11, and 12 fathom deepe, but out of the fare-way, either on the north ſide, or ſouth ſide, it is ſhoaly, to wit, five, ſix, ſeven, and eight fathom, you muſt runne alongſt cloſe by the point of Meſſie, there is 22 fathom deep.

When as that Royan commeth to the weſt point, where upon the mills ſtand keep it ſo ſtanding, and go away ſoutheaſt and by ſouth towards Chaſtillion, it is in this fareway almoſt all alongſt 5 fathom deep, but comming near the north or ſouth ſide, it is ſhoaly, and at the north ſide it is full of ſands, where alſo men may well ſayle through that are acquainted.

From Chaſtillion to Pouliack it is 2 great leagues ſ. eaſt, the courſe is as before is ſayd, and it is there deep 4, 5, 6, and 7 fathom. Over againſt Pouliack in the midſt of the River lieth a little Iſland to the eaſtwards, men muſt runne about it, right in with Bloy, but there men muſt goe over with tyde, for it is there at low water but a little more then one fathom deep. Pouliak.

When you are before Pouliack, and will ſayle to Bloye, then let the water firſt flow an houre, and then you may well goe over with a ſhip that draweth nine or ten foote water. The markes for to ſayle alongſt in the deepeſt water of this reach, are theſe: there ſtandeth a Mill halfe wayes betwixt Bloye and Rocktaw, keepe that without the new wall of Bloye, and then you ſhall run in the deepeſt of the Channell.

Before Bloye it is againe three or foure fathom deepe, runne then alongſt by the north land in three, foure, and five fathom. When you come before the River which lieth up to the eaſtwards called Dordoigne, then ſayle firſt right with the middeſt of the ſecond Iſland, and leave it Bloye.

on

on the ſtarboard ſide, and go indifferent neara alongſt by it, untill that you be over againſt or paſt the Gallowes, which ſtandeth upon the eaſt poynt of the River: and then againe alongſt by the north land unto the foure little houſes. From thence you muſt edge over to the high tower of Dublot or Pigeonhouſe, coming thwart of it, you muſt preſently edge over againſt to the eaſt ſide, to the hight neare Lermond; in that edging over, you ſhal runne through betwixt a ſtone banke on the larboard ſide, and a ſhoale ſand-plate on the ſtarboard ſide, over a banke called the Pace, which is the ſhoalieſt of all the River, there remaineth at low water a little leſſe then a fathom. Being come over the Pace to the eaſt ſide, goe then in alongſt by the eaſt ſhoare, untill you be paſt Lermond, then ſayle againe over to the weſt ſide, right with the houſes of Charterhouſe, and then in all alongſt by the weſt ſhoare, untill you come before the towne of Bourdeaux, in that crooked reach betwixt Lermond & Charterhouſe it is 5, 6 and 7 fathom deep, and before the town 4 and 5 fathom.

The pace.

When men will ſayle out of the river of Bourdeaux, they muſt ſtay at Royan untill they have good weather, and a fore-ebbe to run out with: in running out, keepe the high ſand-hill north north eaſt from you, ſo long until that the tower of Cordan be ſoutheaſt and by eaſt from you, then you may ſayle out through the Aſſes northweſt and by weſt into ſea.

From Cordan, or the river of Bourdeaux, unto Arcachon, the coaſt lieth ſ. and n. twenty leagues, it is all low ſandy land, betwixt them both lieth a tyde-haven called Anchiſes, men may go in there well at high water with great ſhips.

Arcaſon. Before the haven of Arcachon, or Arcaſon, lie three ſhoals, men may ſayle in to the northwards of them, and alſo into the ſouthwards of them: the norther entry goeth in betwixt the north point and the northermoſt ſhoale, but it is narrow and not deep. The ſouther entry lieth to the ſouthwards of all the ſhoals by the ſouther point, in betwixt two ſhoaly ſand-bankes, where of the one lieth off from the ſouthermoſt ſhoale, and the other from the ſouth point of maine land, ſ. weſt and by w. in to the ſea. The land to the n. wards of this haven is altogether ſomewhat low ſandy land without trees, but to the ſouthwards of it they are all ſomewhat high ſand-hils without trees alſo, but comming before the havens mouth, you ſhall ſee within in the land many trees. When you come out of the ſea either from the northwards or the ſouthwards, neare about this havens mouth, you ſhall eaſily aſpy the foreſaid bankes on both ſides of the ſouther entry, by the breaking of the ſea, and you may borrow of them by your lead, as neare as you pleaſe, they are very cleane and flat. Upon the ſandhils within the haven mouth, ſtand two great high maſts. If you wil ſayle in there, then bring the two Maſts one in the other, & then they ſhall ſtand north-eaſt and by eaſt from you, keepe them one in the other, and ſayle in ſo right with them, and you ſhall ſo ſayle in betwixt the two foreſaid bankes, and at low water you ſhall not finde leſſe then two fathom water, but at high water you ſhall have five and a halfe, and ſixe fathom water, go in ſo upon the markes, untill you come within the ſhoals, and to the end of the ſhoale ſand on the larboard ſide. Being gotten in within it, you muſt luffe up about by it, and goe then on north untill you come to the point, which you ſhall ſee on the ſtarboard ſide, but give that a birth, becauſe there runneth off a tayle, there is in that reach no leſſe then ten, eleven, or twelve fathom deep. Being come about that point, you may then ſayle in cloſe alongſt by the land on the ſtarboard ſide, which lieth eaſt ſoutheaſt, or you may anchor there in ſixteen, fifteen, twelve, and ten fathom, or further in about the ſecond poynt, in two and three fathom. Over againſt the firſtpoint, on the north ſide, it falleth very far dry, a great waies within

For to ſail into the haven of Arcaſon.

Bayone. From Arcaſon to Bayone, the coaſt lieth ſouth and north ſixteen or ſeventeen leagues. The Rivers mouth of Bayone lieth in betwixt two plaine ſtrands e. ſ. e. and eaſt & by ſouth, and ſometimes more eaſterly or northerly, by reaſon of the ſhiftingh and altering of the ſands before the Rivers mouth. Upon the land on the ſouth ſide of the channell, ſtand two maſt, theſe you muſt keepe one in the other, or the innermoſt a little to the northwards of the outermoſt, and run ſo in over the Barre of ſhoalieſt place, untill you come againſt the ſouth point, an then in alongſt by it. Upon the foreſaid Barre is at high water and Spring-tyde, at leaſt three fathom, with an ordinary tyde two fathom and a halfe, but at low water no more then 3 foot water. When you come about the point, you muſt ſayle up to the ſouthwards, keeping about the middle of the channell alongſt the river, or rather neareſt the weſt ſide, for to avoide ſome foule ground and ſhoale, that lie on the eaſt ſide, and anchor before the town in foure, five, or ſixe fathom. This Bar and this River is Pilots water.

A little within this Barre on the north ſide of the River lieth up to the northwards, a great wather within, of 7 leagues long, and falleth out into Sea by Cabritton. Alongſt that great water the ſhips were wont to ſayle up to Bayone, but it is now upon the ſouth end at the river of Bayone, almoſt altogether paled too, ſo that there can but ſmall barkes goe through, for to keepe the better the Barre of Bayone deepe with ſcowring through of the water.

From the Barre of Bayone to S. John de Luz, the courſe is ſouth and by weſt 4 leagues, there is a faire Bay, where men may ride in five, ſixe, ſeven, or eight fathom, according as they will ley farre in, cleane ſandy ground, at the end of the Bay is a little tyde-haven, where upon lyeth the towne on te weſt ſide. At high water, and with an ordinary tyde, there commeth nine foote, but with a ſpring twelve foote water, at low water it falleth altogether dry, ſo that men may goe over there with drie feete. A little within the weſt point of the Bay is alſo a little Dock, where there is a foot water more then in the foreſaid tyde-haven, but it falleth alſo dry at low water.

This Bay is very good to know by theſe marks that hereafter are written: It lyeth right in the Bight, to the eaſtwardes of it lyeth the land north and by eaſt towards Bayone, and to the weſtwardes of it the land falleth away ſourthweſt and by weſt, and ſouthweſt towards Fonteravia. Upon the eaſt poynt of the Bay ſtandeth a white Fire-tower, which men may ſee farre off, eſpecially when the Sunne ſhineth upon it, then it ſhineth very white more then the ohter land. Upon the weſt poynt ſtandeth a flat white houſe a little wayes upon the high land, to the weſtwardes of the Bay it is upon the ſea ſide gray and blewiſh land. Alſoo the high hill of S. John de Luz, is a good marke for to know this Bay, which remainth in ſayling in, lying ſomewhat to the eaſtwardes, or on the larboard ſide. This foreſayd hill of S. John de Luz ſheweth it ſelfe out in height above all other hilles thereabouts, & thereby is very good to be knowne, above upon the top it is ſomewhat flat, as is demonſtrated in the riſing of the lands. Upon this foreſayd hill ſtandeth a Chappel, from whence men may ſee into foure Kingdomes: France, Spaine, Navarre, and Arragon.

About two leagues ſouthweſt and ſouthweſt an by weſt from S. John de Luz, lye the rocks called the Pignons of S. Anna, not farre from land: a league to the weſtwards of them lyeth the Bay of Fonteravia, being a faire Bay.

At the weſt point of the Bay lyeth the C. Figure, a high point, upon it ſtandeth a caſtle, & to the ſouthwards of it a little chappel. At the point of this cape lyeth a rock a little wayes from it, but the ſea cannot runne through betwixt them, except it be with very high floods, it braketh a little through. At the eaſt ſide of this bay lye two high rocks, and thwart of them lye alſo ſome low rocks a good wayes off from the land. For to avoyd them you muſt ſayle in by the weſt point for to come into this Bay, and being within it, you may anchor in eight or nine fathom, but ſo that the foreſayd great rock at the C. Figure ſtand northnorthweſt from you, there you lye in faire ſandy ground, and landlockt for a north weſt winde. The Kroonenbrough lyeth about halfe wayes betwixt S. John de Luz and this foreſayd Bay of Fonteravia.

A little

A little league to the westwards of C. de Figuer, lieth Passage also a faire haven. At the west side of the havens mouth, which is very narrow, lyeth a round rock, so that it is evill to come in there with and ebb, but with a flood it is better, without it is very cleane, without any shoale or fowle grounds, but onely the foresayd rounde rocke. The towne lyeth a little within the haven on the w. side, where men doe lye before it in 7 fathom.

Two great leagues to the westwardes of Passage, lyeth S. Sebastians, betwixt both is also a sand-bay in a bight, where there goeth up into the land a shoale little river. where come in many Barkes.

The haven of Saint Sebastians is good for to come into, men doe runne in there betwixt two little castles, where of the eastermost is the greatest, standing upon a high hill. The westermost is a little square Tower, and lyeth upon a little Island, or rock. In the havens mouth being narrouw, betwixt the two foresayd little Castles, lyeth a rocke, which at low water is sixe fathom deepe, and when it is a storme out of the sea, it breaketh allwayes upon it, and lyeth neerest the east-land, by the west-land it is deepe ten fathom. Now for to avoyd the foresayd rocke in comming in, there commeth an Abby to the eastwards of the westermost Island, and a little Tower. If you keepe them one in the other, then you run into eastwards of it.

For to anchor without S. Sebastians in the road, you must keepe the high hill which lyeth upon the point of Cape Figuer, without the foresayd eastermost castle, there you may anchor, but if the same come to be hidden behind the castle or Island, then you may not anchor in the road of S. Sebastians. When you are come through the narrow within the rock and the castles, then you may anchor at the east side under the great castle, there is the best road. Within the foresayd castle goeth up a little water, men may goe at low water on foot from the easter castle alongst a high strand upon the maine land, unto the Towne, which lyeth behinde the foresayd high hill with the Castle, yet the strand at high water is covered; it is a bay, and within Before the towne it is deepe five, sixe, and seven fathom, at the west side under the little Island, men may not anchor, because it is flat and shoale there.

He that will goe forth from thence into S. Sebastians, let him run in, keeping the middle channel, betwixt the two Islands, and let him leave the little Island where upon the chappel standeth on the starboard side, running in so right against the first or the second wall of the towne, and anchor there, the boats or shallops shal come aboard of him, and helpe him into the haven betwixt the walles

A league to the westwardes of S. Sebastians, lyeth a sandbay, where men may anchor so deep and so shallow as they will.

Of the Tydes and Courses and Streames.

Like as on all the coastes of France, so also at the mouth of the River of Bourdeaux, maketh high water a s.w and northeast moone.

In the Haven of Arcason a southwest and by west & a northeast & by east Moone maketh high water, but the flood drawes almost an houre longer in then the water flowes.

On all the places, and before all the havens of these coasts, a southwest and northeast moon maketh the highest water, but within the havens about a poynt later, according as they lye deepe within the land, likeas on the coasts of Brittaigne, Poictou, and Gascoigne. Men reckon here also no falling or setting of the streames But the streames fall here thwart of and on.

Upon the coast of Biscay wee find no running of streames, but a southeast & northwest moone maketh over all the coasts the highest water, and within the Rivers a point lesse.

Of the Depths.

The land against the River of Bourdeaux men may see from the poop in 30 fathom, and the Tower of Cordan in 27 fathom.

Betwixt Arcason, & S. John de Luz men may see the land in 30 fathom, when about Bayone, they shall see Cabritton, Bayone, Bedert, and S. John de Luz, almost all flat Towers.

Being before Passage, men may see also the point C. Figuer, and S Sebastians, the land lieth in there with a great Bay.

About C. de Figuer lieth a high hill, which at the southwest ende is very steepe, and goeth very long sloping down towards the north.

When men are before S. Sebastians 7 or 8 leagues without the land, then it riseth somewhat long, and at the west end steep and hollow, but when men come close by the land, then it is very high and steepe.

When men are 8 leagues without S. Sebastians, then may they see the eastermost or greatest castle upon the high hill, and also o the little Islands to the westwards of it.

Courses and Distances.

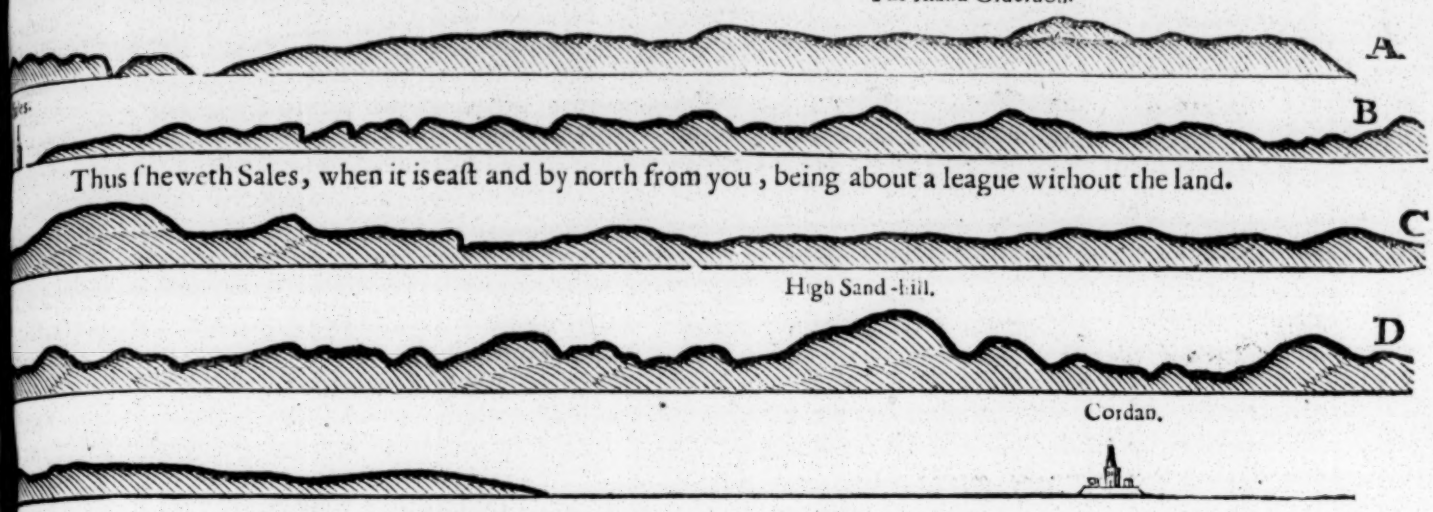
From Cordan to Arcason south	20 leagues.
From Arcason to Bayone south	16 or 17 leagues.
From the Tower Cordan to Cape de Pinas w. s. w. somewhat southerly	75 leagues.
From Bayone to S. John de Luz s. & by w	4 leagues.
From S. John de Luz to the Pignons of S. Anna, s. w. and by west	2 leagues.
From S John de Luz to S. Sebastians w.	8 leagues.
From S. Sebastians to Gateria	8 leagues.
From Bayone to the Seames n. w. somewhat westerly	102 leagues.
From S. Sebastians to Bell-Isle n. n. w. somewhat northerly,	75 leagues.
From S. Sebastians to the Seames northwest and by north	102 leagues.

The courses & distances of the places one from the other is declared in the description.

Heyghts.

The Tower of Cordan lyet in	45 degrees, 36 minut.
Arcason in	44 degrees, 40 minut.
Bayone lyeth in	43 degrees, 46 minut.

The land betwixt Olderdon and the River of Bourdeaux ſheweth (when men ſayle alongſt by it) as is pourtrayed in the ſe 5 following figures, the letters of one ſort belong one to the other, as AA, BB, CC, DD.



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FRom the Band or Crage off Oleron to the Tower of Cordan, or the Pole-head, or the mouth off the River off Bourdeaux, called the Garrone, the land lyeth ſouth ſoutheaſt, and ſ. and by e. 13 leagues.

To the northwardes of the mouth of the river of Bourdeaux, lye five or ſix high white Sand-hills, but to the ſouthwards off it, it is ſomewhat low land, blacke little Sandhilles, being growne with ſpiry graſſe.

From the Tower of Cordan off to the northwards, wards the high Sandhills, which lye upon the north and, lyeth a ſand bancke, called the Piper, men may ond alongſt by it on the weſt ſide in ſeven fathom, but pon the north-end it is very ſteepe, and not farre off it is enty fathom deep.

From the north-point off the River runneth off to the uthwards, a ſand called the norther Aſſes, and to the uthwards of it lyeth another ſand, called the ſouther ſſes, through betwixt them both, & alſo alongſt to the uthwards of them, men may ſayle into the River.

If you will ſayle into the River comming from the rthwards, then you may run alongſt by the ſhoale in and 13 fathom, untill that the tower of Cordan ſtand utheaſt and by eaſt from you, runne then right in with through betwixt the norther and ſouther Aſſes, untill at the high white ſandhil upon the north point of the iver ſtand northnortheaſt from you, men may ſo (comng from the northwards) runne in alſo about by the rther Aſſes, by your lead, untill that the Tower come be ſouthſoutheaſt, and ſoutheaſt and by ſouth from u, then goe towards the Tower, and when the foreſayd gh ſand-hil come to be northnortheaſt or northeaſt and north from you, ſayle then right in with it untill that u have the ſounding of the land, run then in alongſt by towards Meſſie, that is the point where all the mils and. When you ſhall ſaile thus towards the high ſandll, and that the Tower of Saulack commeth a great fahom to the northwards of the Tower of Cordan, and the ttle mill of Royan, then are you alſo paſt the Piper, and ay run in right eaſt without feare towards Royan, but u muſt reckon well your tyde, for the flood falleth ward over the Aſſes towards the Tower off Cordan, and e ebbe in the contrary.

In this foreſaid channell through betwixt the Aſſes reaineth at low water 3 fathom water upon the ſhoals.

For to ſayl into the River alongſt to the ſouthwards of e Aſſes, comming from the northwards, (that is, the eſt channell) you muſt do thus: Bring the Tower of oulacke eaſt from you, or ſomewhat more northerly, and ſayle in ſo right with it untill the tower of Cordan be north and by eaſt, and north northeaſt from you, Royan ſhall then ſtand north eaſt from you, or elſe if you come from the ſouthwards, then bring the Tower of Cordan north and by eaſt, and north n. e. from you, and ſayle in ſo right with it untill Soulack come to be eaſt from you, Royan ſhall then ſtand n. e. from you, ſayle then right towards it, & comming near it, ſayle to the point of Meſſie.

When you are now within the Rivers mouth, and come right againſt the point of Meſſie, that is the point where the Mills ſtand upon, then edge over towards the broken Caſtle, called Chaſtillion, ſouth eaſt and by ſouth, Chaſtillion. that is, eight leagues from Meſſie, and then forth in alongſt by the ſouth land, ſouth eaſt in unto Pouliack, Pouliak. which is two great leagues.

In the fareway betwixt the Piper and the point with the Mills, or Meſſie, it is 10, 11, and 12 fathom deepe, but out of the fare-way, either on the north ſide, or ſouth ſide, it is ſhoaly, to wit, five, ſix, ſeven, and eight fathom, you muſt runne alongſt cloſe by the point of Meſſie, there is 22 fathom deep.

When as that Royan commeth to the weſt point, where upon the mills ſtand keep it ſo ſtanding, and go away ſoutheaſt and by ſouth towards Chaſtillion, it is in this fareway almoſt all alongſt 5 fathom deep, but comming near the north or ſouth ſide, it is ſhoaly, and at the north ſide it is full of ſands, where alſo men may well ſayle through that are acquainted.

From Chaſtillion to Pouliack it is 2 great leagues ſ. eaſt, Pouliak. the courſe is as before is ſayd, and it is there deep 4, 5, 6, and 7 fathom. Over againſt Pouliack in the midſt of the River lieth a little Iſland to the eaſtwards, men muſt runne about it, right in with Bloy, but there men muſt goe over with tyde, for it is there at low water but a little more then one fathom deep.

When you are before Pouliack, and will ſayle to Bloye, then let the water firſt flow an houre, and then you may well goe over with a ſhip that draweth nine or ten foote water. The markes for to ſayle alongſt in the deepeſt water of this reach, are theſe: there ſtandeth a Mill halfe wayes betwixt Bloye and Rocktaw, keepe that without the new wall of Bloye, and then you ſhall run in the deepeſt of the Channell.

Before Bloye it is againe three or foure fathom deepe, Bloye. runne then alongſt by the north land in three, foure, and five fathom. When you come before the River which lieth up to the eaſtwards called Dordoigne, then ſayle firſt right with the middeſt of the ſecond Iſland, and leave it

on

on the ſtarboard ſide, and go indifferent neara alongſt by it, untill that you be over againſt or paſt the Gallowes, which ſtandeth upon the eaſt poynt of the River: and then againe alongſt by the north land unto the foure little houſes. From thence you muſt edge over to the high tower of Dublot or Pigeonhouſe, coming thwart of it, you muſt preſently edge over againſt to the eaſt ſide, to the hight neare Lermond; in that edging over, you ſhal runne through betwixt a ſtone banke on the larboard ſide, and a ſhoale ſand-plate on the ſtarboard ſide, over a banke called the Pace, which is the ſhoalieſt of all the River, there remaineth at low water a little leſſe then a fathom. Being come over the Pace to the eaſt ſide, goe then in alongſt by the eaſt ſhoare, untill you be paſt Lermond, then ſayle againe over to the weſt ſide, right with the houſes of Charterhouſe, and then in all alongſt by the weſt ſhoare, untill you come before the towne of Bourdeaux, in that crooked reach betwixt Lermond & Charterhouſe it is 5,6 and 7 fathom deep, and before the town 4 and 5 fathom.

The pace.

When men will ſayle out of the river of Bourdeaux, they muſt ſtay at Royan untill they have good weather, and a fore-ebbe to run out with: in running out, keepe the high ſand-hill north north eaſt from you, ſo long until that the tower of Cordan be ſoutheaſt and by eaſt from you, then you may ſayle out through the Aſſes northweſt and by weſt into ſea.

From Cordan, or the river of Bourdeaux, unto Arcachon, the coaſt lieth ſ. and n. twenty leagues, it is all low ſandy land, betwixt them both lieth a tyde-haven called Anchiſes, men may go in there well at high water with great ſhips.

Arcaſon. Before the haven of Arcachon, or Arcaſon, lie three ſhoals, men may ſayle in to the northwards of them, and alſo into the ſouthwards of them: the norther entry goeth in betwixt the north point and the northermoſt ſhoale, but it is narrow and not deep. The ſouther entry lieth to the ſouthwards of all the ſhoals by the ſouther point, in betwixt two ſhoaly ſand-bankes, where of the one lieth off from the ſouthermoſt ſhoale, and the other from the ſouth point of maine land, ſ. weſt and by w. in to the ſea. The land to the n. wards of this haven is altogether ſomewhat low ſandy land without trees, but to the ſouthwards of it they are all ſomewhat high ſand-hils without trees alſo, but comming before the havens mouth, you ſhall ſee within in the land many trees. When you come out of the ſea either from the northwards or the ſouthwards, neare about this havens mouth, you ſhall eaſily aſpy the foreſaid bankes on both ſides of the ſouther entry, by the breaking of the ſea, and you may borrow of them by your lead, as neare as you pleaſe, they are very cleane and flat. Upon the ſandhils within the haven mouth, ſtand two great high maſts. If you wil ſayle in there, then bring the two Maſts one in the other, & then they ſhall ſtand north-eaſt and by eaſt from you, keepe them one in the other, and ſayle in ſo right with them, and you ſhall ſo ſayle in betwixt the two foreſaid bankes, and at low water you ſhall not finde leſſe then two fathom water, but at high water you ſhall have five and a halfe, and ſixe fathom water, go in ſo upon the markes, untill you come within the ſhoals, and to the end of the ſhoale ſand on the larboard ſide. Being gotten in within it, you muſt luffe up about by it, and goe then on north untill you come to the point, which you ſhall ſee on the ſtarboard ſide, but give that a birth, becauſe there runneth off a tayle, there is in that reach no leſſe then ten, eleven, or twelve fathom deep. Being come about that point, you may then ſayle in cloſe alongſt by the land on the ſtarboard ſide, which lieth eaſt ſoutheaſt, or you may anchor there in ſixteen, fifteen, twelve, and ten fathom, or further in about the ſecond poynt, in two and three fathom. Over againſt the firſt point, on the north ſide, it falleth very far dry, a great waies within

For to ſail into the haven of Arcaſon.

Bayone. From Arcaſon to Bayone, the coaſt lieth ſouth and north ſixteen or ſeventeen leagues. The Rivers mouth of Bayone lieth in betwixt two plaine ſtrands e. ſ. e. and eaſt & by ſouth, and ſometimes more eaſterly or northerly, by reaſon of the ſhiftingh and altering of the ſands before the Rivers mouth. Upon the land on the ſouth ſide of the channell, ſtand two maſt, theſe you muſt keepe one in the other, or the innermoſt a little to the northwards of the outermoſt, and run ſo in over the Barre of ſhoalieſt place, untill you come againſt the ſouth point, an then in alongſt by it. Upon the foreſaid Barre is at high water and Spring-tyde, at leaſt three fathom, with an ordinary tyde two fathom and a halfe, but at low water no more then 3 foot water. When you come about the point, you muſt ſayle up to the ſouthwards, keeping about the middle of the channell alongſt the river, or rather neareſt the weſt ſide, for to avoide ſome foule ground and ſhoale, that lie on the eaſt ſide, and anchor before the town in foure, five, or ſixe fathom. This Bar and this River is Pilots water.

A little within this Barre on the north ſide of the River lieth up to the northwards, a great wather within, of 7 leagues long, and falleth out into Sea by Cabritton. Alongſt that great water the ſhips were wont to ſayle up to Bayone, but it is now upon the ſouth end at the river of Bayone, almoſt altogether paled too, ſo that there can but ſmall barkes goe through, for to keepe the better the Barre of Bayone deepe with ſcowring through of the water.

From the Barre of Bayone to S. John de Luz, the courſe is ſouth and by weſt 4 leagues, there is a faire Bay, where men may ride in five, ſixe, ſeven, or eight fathom, according as they will ley farre in, cleane ſandy ground, at the end of the Bay is a little tyde-haven, where upon lyeth the towne on te weſt ſide. At high water, and with an ordinary tyde, there commeth nine foote, but with a ſpring twelve foote water, at low water it falleth altogether dry, ſo that men may goe over there with drie feete. A little within the weſt point of the Bay is alſo a little Dock, where there is a foot water more then in the foreſaid tyde-haven, but it falleth alſo dry at low water.

This Bay is very good to know by theſe marks that hereafter are written: It lyeth right in the Bight, to the eaſtwardes of it lyeth the land north and by eaſt towards Bayone, and to the weſtwardes of it the land falleth away ſouthweſt and by weſt, and ſouthweſt towards Fonteravia. Upon the eaſt poynt of the Bay ſtandeth a white Fire-tower, which men may ſee farre off, eſpecially when the Sunne ſhineth upon it, then it ſhineth very white more then the ohter land. Upon the weſt poynt ſtandeth a flat white houſe a little wayes upon the high land, to the weſtwardes of the Bay it is upon the ſea ſide gray and blewiſh land. Alſoo the high hill of S. John de Luz, is a good marke for to know this Bay, which remainth in ſayling in, lying ſomewhat to the eaſtwardes, or on the larboard ſide. This foreſayd hill of S. John de Luz ſheweth it ſelfe out in height above all other hilles thereabouts, & thereby is very good to be knowne, above upon the top it is ſomewhat flat, as is demonſtrated in the riſing of the lands. Upon this foreſayd hill ſtandeth a Chappel, from whence men may ſee into foure Kingdomes: France, Spaine, Navarre, and Arragon.

About two leagues ſouthweſt and ſouthweſt an by weſt from S. John de Luz, lye the rocks called the Pignons of S. Anna, not farre from land: a league to the weſtwards of them lyeth the Bay of Fonteravia, being a faire Bay.

At the weſt point of the Bay lyeth the C. Figure, a high point, upon it ſtandeth a caſtle, & to the ſouthwards of it a little chappel. At the point of this cape lyeth a rock a little wayes from it, but the ſea cannot runne through betwixt them, except it be with very high floods, it braketh a little through. At the eaſt ſide of this bay lye two high rocks, and thwart of them lye alſo ſome low rocks a good wayes off from the land. For to avoyd them you muſt ſayle in by the weſt point for to come into the Bay, and being within it, you may anchor in eight or nine fathom, but ſo that the foreſayd great rock at the C. Figure ſtand northnorthweſt from you, there you lye in faire ſandy ground, and landlockt for a north weſt winde. The Kroonenbrough lyeth about halfe wayes betwixt S. John de Luz and this foreſayd Bay of Fonteravia.

A little

A little league to the weſtwards of C. de Figuer, lieth Paſſage alſo a faire haven. At the weſt ſide of the havens mouth, which is very narrow, lyeth a round rock, ſo that it is evill to come in there with and ebb, but with a flood it is better, without it is very cleane, without any ſhoale or fowle grounds, but onely the foreſayd rounde rocke. The towne lyeth a little within the haven on the w. ſide, where men doe lye before it in 7 fathom.

Two great leagues to the weſtwardes of Paſſage, lyeth S. Sebaſtians, betwixt both is alſo a ſand-bay in a bight, where there goeth up into the land a ſhoale little river. where come in many Barkes.

The haven of Saint Sebaſtians is good for to come into, men doe runne in there betwixt two little caſtles, where of the eaſtermoſt is the greateſt, ſtanding upon a high hill. The weſtermoſt is a little ſquare Tower, and lyeth upon a little Iſland, or rock. In the havens mouth being narrouw, betwixt the two foreſayd little Caſtles, lyeth a rocke, which at low water is ſixe fathom deepe, and when it is a ſtorme out of the ſea, it breaketh allwayes upon it, and lyeth neereſt the eaſt-land, by the weſt-land it is deepe ten fathom. Now for to avoyd the foreſayd rocke in comming in, there commeth an Abby to the eaſtwards of the weſtermoſt Iſland, and a little Tower. If you keepe them one in the other, then you run into eaſtwards of it.

For to anchor without S. Sebaſtians in the road, you muſt keepe the high hill which lyeth upon the point of Cape Figuer, without the foreſayd eaſtermoſt caſtle, there you may anchor, but if the ſame come to be hidden behind the caſtle or Iſland, then you may not anchor in the road of S. Sebaſtians. When you are come through the narrow within the rock and the caſtles, then you may anchor at the eaſt ſide under the great caſtle, there is the beſt road. Within the foreſayd caſtle goeth up a little water, men may goe at low water on foot from the eaſter caſtle alongſt a high ſtrand upon the maine land, unto the Towne, which lyeth behinde the foreſayd high hill with the Caſtle, yet the ſtrand at high water is covered; it is a bay, and within Before the towne it is deepe five, ſixe, and ſeven fathom, at the weſt ſide under the little Iſland, men may not anchor, becauſe it is flat and ſhoale there.

He that will goe forth from thence into S. Sebaſtians, let him run in, keeping the middle channel, betwixt the two Iſlands, and let him leave the little Iſland where upon the chappel ſtandeth on the ſtarboard ſide, running in ſo right againſt the firſt or the ſecond wall of the towne, and anchor there, the boats or ſhallops ſhal come aboard of him, and helpe him into the haven betwixt the walles

A league to the weſtwardes of S. Sebaſtians, lyeth a ſandbay, where men may anchor ſo deep and ſo ſhallow as they will.

Of the Tydes and Courſes and Streames.

Like as on all the coaſtes of France, ſo alſo at the mouth of the River of Bourdeaux, maketh high water a ſ.w and northeaſt moone.

In the Haven of Arcaſon a ſouthweſt and by weſt & a northeaſt & by eaſt Moone maketh high water, but the flood drawes almoſt an houre longer in then the water flowes.

On all the places, and before all the havens of theſe coaſts, a ſouthweſt and northeaſt moon maketh the higheſt water, but within the havens about a poynt later, according as they lye deepe within the land, like as on the coaſts of Brittaigne, Poictou, and Gaſcoigne. Men reckon here alſo no falling or ſetting of the ſtreames But the ſtreames fall here thwart of and on.

Upon the coaſt of Biſcay wee find no running of ſtreames, but a ſoutheaſt & northweſt moone maketh over all the coaſts the higheſt water, and within the Rivers a point leſſe.

Of the Depths.

The land againſt the River of Bourdeaux men may ſee from the poop in 30 fathom, and the Tower of Cordan in 27 fathom.

Betwixt Arcaſon, & S. John de Luz men may ſee the land in 30 fathom, when about Bayone, they ſhall ſee Cabritton, Bayone, Bedert, and S. John de Luz, almoſt all flat Towers.

Being before Paſſage, men may ſee alſo the point C. Figuer, and S Sebaſtians, the land lieth in there with a great Bay.

About C. de Figuer lieth a high hill, which at the ſouthweſt ende is very ſteepe, and goeth very long ſloping down towards the north.

When men are before S. Sebaſtians 7 or 8 leagues without the land, then it riſeth ſomewhat long, and at the weſt end ſteep and hollow, but when men come cloſe by the land, then it is very high and ſteepe.

When men are 8 leagues without S. Sebaſtians, then may they ſee the eaſtermoſt or greateſt caſtle upon the high hill, and alſoo the little Iſlands to the weſtwards of it.

Courſes and Diſtances.

From Cordan to Arcaſon ſouth	20 leagues.
From Arcaſon to Bayone ſouth	16 or 17 leagues.
From the Tower Cordan to Cape de Pinas w. ſ. w. ſomewhat ſoutherly	75 leagues.
From Bayone to S. John de Luz ſ. & by w	4 leagues.
From S. John de Luz to the Pignons of S. Anna, ſ. w. and by weſt	2 leagues.
From S John de Luz to S. Sebaſtians w.	8 leagues.
From S. Sebaſtians to Gateria	8 leagues.
From Bayone to the Seames n. w. ſomewhat weſterly	102 leagues.
From S. Sebaſtians to Bell-Iſle n. n. w. ſonewhat northerly,	75 leagues.
From S. Sebaſtians to the Seames northweſt and by north	102 leagues.

The courſes & diſtances of the places one from the other is declared in the deſcription.

Heyghts.

The Tower of Cordan lyet in	45 degrees, 36 minut.
Arcaſon in	44 degrees, 40 minut.
Bayone lyeth in	43 degrees, 46 minut.

The deſcription of the River of Bourdeaux to S. Sebaſtiaen.

How theſe Lands doe shew themſelves at Sea.



Thus ſheweth the land about Arcaſon when it is from you eaſt ſoutheaſt neare two miles.



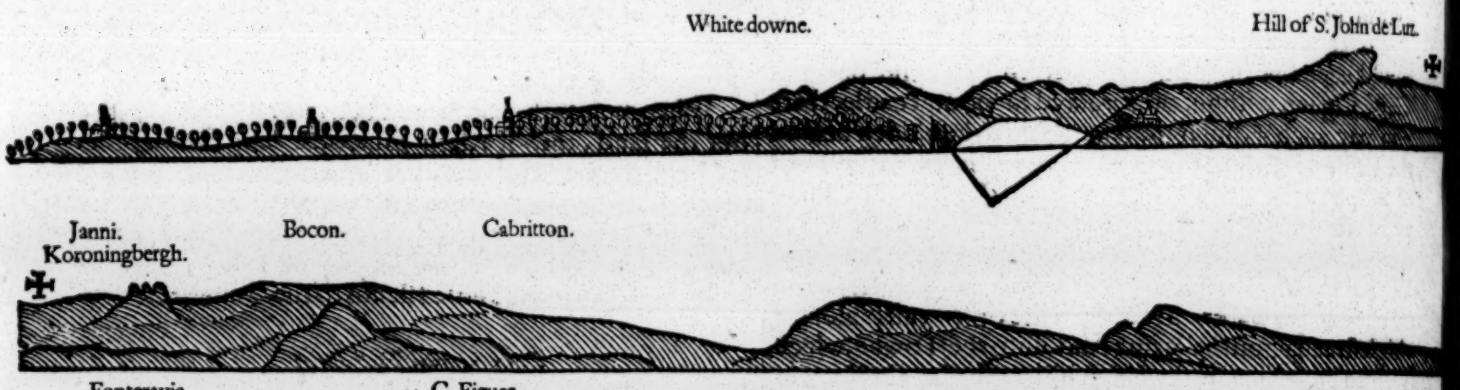
Thus appereth Arcaſon when it is northeaſt and by eaſt about two miles.



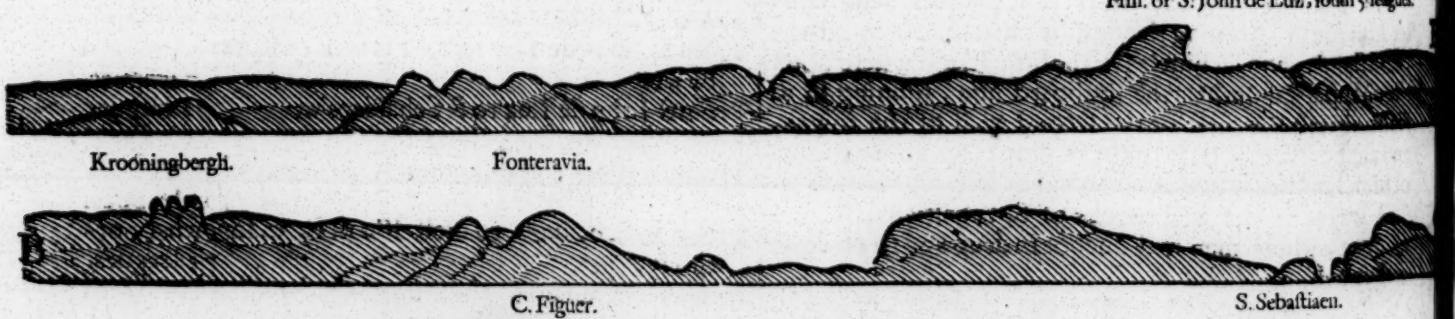
Thus ſheweth the land about the bight of S. John de Luz, of from Cabritton untill paſt S. Sebaſtiaens.



Thus ſheweth S. Sebaſtiaens, when you get firſt ſight of it, being ſeven leagues of from it.



The foreſayd Iſland about the bight of S. John de Luz from the northwards of Cabritton untill paſt Fonteravia, ſheweth thus, as is demonſtrated in theſe two figures, when you are before the Barre of Bayone.





When the Hill of S. John de Luz is ſouth from you five leagues, then the land to the eaſtwards of it untill paſt S. Sebaſtiaens, ſheweth as is here above pourtrayed in theſe two figures, the BB, and CC, belong one to the other.



Thus ſheweth the land about S. Sebaſtiaen when it is five leagues from you.



Paſſage and S. Sebaſtiaens, being ſouthſouthweſt from you, ſheweth thus.

The

Cuſt van
BISCAYEN
tuſschen Gatarya en
Rio de Sella
't Amſterdam.
By Iacob Theuniſz op
't water inde
Lootsman

Duytſche mylen 15 in een graet
Spaenſche mylen 17½ in een graet
Eng en Fra. mylen 20 in een graet

Bilbao
Porto Galetti
Barſa
M. Madre
Placentia
Gatarya Isle
Bara meda
C de Machicaco
Castro
Laredo
Orinnjan
M. S. Antony
C. de Aviles
Avles
Lores
C. de Pinas
t Land van
Artedo

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Cust-
van
BISCAYEN
Tusschen Villa
Vicioça ende C.
de Ortegael.

Espinosa

S. Iust.

S. Martin
Seteruelis

S. Ulmas

S. Vincents

Liarges

Rio de Sella

Ribadeus

Nostra Singnora
als a Iasquelez

C. de Brib

B. S. Cyprian

Viverus

S. Marcus

Castael S.m Ortegael

C. de Ortegael

L. S. Cyprian

The fourth Demonſtration.

In wich

The Coaſt of Biſcaye from Coninx reede to the Iſland S. Cypriaen, are delineated.

FRom S. Sebaſtians to C. de Martinchaco, the courſe is w. n. w. 13 leagues. Betwixt them both lye the roades Gateria and Deva.

Gateria lyeth from S. Sebaſtians weſt and by north, and w. n. w. diſtant 7 leagues, being a faire round ſand-bay, where is good riding for weſterly winds, men lye there within te weſt point right before the Towne in faire ſandy ground, a north winde commeth right from the point. This bay is commonly called Kingshaven.

Alongſt the coaſt of Biſcay, betwixt S. John de Luz and Gateria is every where clean ground and good anchoring in 20 fathom.

From Gateria to Deva it is a league and halfe to the weſtwardes: which is an off-water that commeth out of the high-land.

Two leagues to the weſtwardes lyeth the point of Cape Martinchaco.

About thirteene leagues weſtnorthweſt from S. Sebaſtians, lyeth the Cape de Martinchaco, a little to the weſtwardes of it is a good tyde-haven, where in lyeth a little Towne about a league within the land, upon a river which commeth out of the high land. A little to the weſtwards of Cape de Martinchacol, lyeth a great rock faſt to the land, and a little to the weſtwardes of the ſame another: upon the point called Punte de Avillanes. Southweſt and by weſt from Martinchaco lyeth the haven of Barmea, a faire great Bay, the eaſter poynt is foule, therefore men muſt give it a hood birth, and run in alongſt by the weſt ſide, when they are gotten in it is large enoug, there they may anchor where they will.

To the weſtwardes of Barmea, lyeth alſo Placentia upon a little River, the towne lyeth a little within the land. There are all tyde-havens.

From Cape de Martinchaco to Bilbao, (where betwixt lye the foreſaid haven of Barmea and Placentia) it is ſ. ſouthweſt & ſouthweſt & by ſouth 6 leagues.

From Placentia to Bilboa it is two leagues weſtſouthweſt and weſt and by ſouth. Bilbao lyeth upon a great River alongſt which there commeth of much Iron, it is a good haven, but it lyeth not farre in, by reaſon of the Barre which lyeth thwart over the haven, where men muſt goe in with high water.

At the eaſt poynt of Bilbao ſhooteth of a riffe, which men muſt avoyd, there lye alſo ſome rockes under water. It is a high ſteepe point, and is white to ſee to.

Within the riffe that runneth off from the point, men may anchor in ſeven and eight fathom, betwixt the point and the Piere on the eaſt ſide, there the Pilots come off which bring up the ſhippes, and there men lye land-lockt for a north weſt winde. From this foreſayd point or road to the Barre or river mouth of Bilbao, it is a league and halfe ſ. & by weſt, which lyeth in by the weſt land, there ſtand five or ſixe houſes upon the w. land, when the two weſtermoſt houſes come one in the other, or when you may ſee through the two eaſtermoſt houſes, which ſtand within in the land, then are you upon the Bar or ſhoale, then goe in ſouth and ſ. by eaſt right with the Caſtle Portugalletto, and alongſt cloſe by the Caſtle, and anchor a little within the Caſtle for a weſt winde. But when you are before the Barre, the Pilots come off and bring you to the Town.

When you lie without in the Bay, then you may ſee Mount Anthony lie w. and by north from you.

From the point of Bilboa to Caſtro, the courſe is w. 5 leagues, that is a good haven for 6, 7 and 8 fathom depth. The narrow of the haven lieth in ſouth, in 10 fathom. But further in the river towards the towne, it is not deeper then 3 or 4 fathom.

From Bilbao to the hill of S. Anthonies, it is. w. and by north nine or ten leagues. M. S. Anthony. From Caſtro to Laredo, the courſe is weſt diſtant five leagues, upon the weſt ſide lyeth the foreſayd hill of S. Anthonies, which is a high hill, men may ſayle in cloſe alongſt by it untill they come about the eaſt poynt; within it is wide and broad, and a fit haven for great ſhippes, there men may anchor in ſeven or eight fathom. To the eaſtwards over againſt the hill of S. Anthonies, in the middeſt of the ſound, lyeth a rane of rockes under water, where men may ſayle in about it on both ſides, men may eaſily eſpy them, becauſe it doth alwaies breake upon them, within them is the road for ordinary ſhips, a little before the haven, which is built with a wall. But the great ſhippes, lye a little further off in 6 or 7 fathom depth. On the ſouth ſide of the haven is a little tyde-haven, from the ſame there commeth a great riffe ſhooting off from the eaſt ſide, towards the hill of S. Anthonies; within it is two fathom water right before the village, from de village commeth a tayle of ſand, lying thwart out, with in at low water it is a fathom deepe. In the middeſt of the ſound it is nine fathom, & at the poynt of Saint Anthonies 20 fathom deep. Suncken Rocks.

From S. Anthonies hill to Cape de Keſgo it is weſt and w. and by ſ. 2 leagues, that is a great Cape lying to the eaſtwards of S. Andero: thwart of it is clean ground. C. Keſgo.

From Cape de Keſgo tho the weſtpoint of S. Andero, it is w. & by ſ. 5 leagues, a little to the ſ. wards of the point of S. Andero, upon the e. poynt of Sardinis, is a ſand-bay, there is good anchoring in ten fathom. S. Andero.

From C. de Keſgo to te haven of S. Andero, the courſe is w. ſ. w. diſtant 2 great leagues S. Andero lieth within a Bay, there lyeth an Iſland before the haven, men may go about it on both ſides, it is deepe 8 & 9 fat. but to the ſ. wards of the Iſland it is deep 5, 6, & 7 fathom, according as men will come near to the ſtrand, the haven lieth in firſt w. n. w. The Iſland lieth a great league within the bay: from the eaſt point of the haven, unto the weſt point of the land, it is ſouth and north about a great league S. Anthonis and the weſt point of S. Andero, lie one from the other e. and w. about 5 leagues.

For to know the land when you fall with the land about Laredo, you muſt know that on the w. ſide of the haven of Laredo, lyeth the hill of S. Anthonis, which is a very high hill, which men may ſee very farre from the e. and the w. & a little above the towne of Laredo, men may ſee alſoo a ſharpe hill like the point of a Diamand, or the point of a two hand ſword, further it is about Laredo very high double land, two, three, and at ſome places foure double. The hill of S. Anthonies doth ariſe in two high hommockes, with a valley or ſaddle in the middeſt, betwixt them both within in the land lye alſo two high hills with ſharpe topps. Above and to the w. wards of S. Anthonies, lyeth a piece of land judged to bee about two leagues long, which lyeth in five hills, the eaſtermoſt is the loweſt, and riſe all higher and higher towards the weſt, ſo thad at the laſt to the weſtermoſt is the higheſt, which goeth of ſomewhat flat downward towards the weſt. Betwixt that eaſtermoſt hill and S. Anthonies, lyeth a bay about a league long, called the Bay of Port, men cannot ſee theſe foreſayd hills when they are cloſe by the land, but they muſt be a good wayes off to ſeawardes. Laredo. Bay of Port.

To the weſtwardes of theſe foreſayd hills lyeth another piece of land, which at the eaſt end is higheſt, and goeth

ſloping of towardes the weſt end, allmoſt like Portland. Betwixt that point and the five foreſayd hills, lieth an other ſand-Bay, whereabouts ſtand ſome little houſes, but by it lye many rockes & fowle ground. Thereabouts within the land lieth the foreſayd high round ſharpe hill in forme like the point of a ſword.

S. Andero hat but few hills that are eaſy to be knowne, but when men are before the haven, then they ſhall ſee to the eaſtwards of the towne, a Caſtro upon a high hill, in forme like a Sugerloafe, or a hay-cock, and to the eaſtwards of it is much double land of two and three heights double. But when men come about the Capo de Keſgo, then they ſhall ſee preſently the caſtle upon the weſt land.

From S. Andero to Cape de Pinas the courſe is w. or a little more northerly 31 or 32 leagues. Betwixt them both lye theſe havens following.

S. Martin. Setteviles. First the haven of S. Martin, or Settevilles, a tijde-haven lying eaſt and weſt 4 leagues from S. Andero.

S. Vincent. From thence to S. Vincent alſoo a tyde-haven is five leagues diſtant: the haven goeth in on the eaſt ſide: from the weſt ſide commeth ſhooting off a little riffe, and in the midſt of the havens mouth lieth a little Iſland, where men may goe in on both ſides.

Lhanes. From S. Vincent to Lhances, a tyde-haven, the courſe is weſt 2 or 3 leagues. Upon the weſt ſide of the haven ſtandeth a little Church: and a little within the haven, lyeth a middle plate or ſand, men muſt go in on the w. ſide of the ſand: theſe are all narrow havens, & but little knowne.

From Lhanes to Rio de Sella, the courſe is w. 5 or 6 leagues: betwixt them both lye alongſt the coaſt many rocks, & wtihin them many ſand-bayes, where men for need might ſave ſhips.

Rio de Selle. Hee that will goe into Rio de Sella muſt look out for a maſt which ſtands upon the eaſt land cloſe by the ſame men muſt goe in, the weſt ſide is within fowle, within the maſt men muſt anchor before the village: this is alſo a tyde-haven.

Villa Vicioſa. From Rio de Sella to Villa Vicioſa it is weſt, 9 leagues, this is alſo a tyde-haven, but is clean, the havens mouth lyeth in ſ. ſ. e. and ſ. e. and by ſ. cioſe alongſt by the weſt point of the land, the eaſt ſide is fowle unto the middeſt of the haven: there lieth a rock with a plate right in the midſt of the haven, which at low water fall dry: ſo ſoon as men are within that rock, they muſt anchor winthin the rock; upon the weſt ſide lyeth the towne, men may alſoo ſayle up to it, & anchor there in the ſhoale water.

Sanſon. Six leagues to the weſtwards of Villa Vicioſa lyeth the out-poynt of Sanſon, to the eaſtwards of it lyeth a little Iſland, where upon ſtandeth a little Tower. Betwixt Sanſon and the foreſayd little Iſland is a good road in ſix or ſeven fathom.

At the weſt ſide of Sanſon is alſoo a good road right before the little haven of Sanſon in 6 or 7 fathom.

Gion. To the weſtwardes of Sanſon lyeth Gion with a Piere or Head that is paled off, under the which the Fiſhermen which dwell there, lay their barkes.

A great league to the weſtwards of Gion lyeth the Bay of Tores, a good road for a ſouthweſt and weſt wind in 8 and 9 fathom. Upon the point ſtandeth a high tower.

Tores. Three leagues to the weſtwards of Tores lyeth Cape de Pinas, where many rockes lye off to ſeawards, at leaſt a halfe league of, ſome doe ſay that men may ſayle through betwixt the point & theſe rockes.

C. de Pinas. From the cape de Pinas lyeth off a rane of rockes, lying at the leaſt a halfe league into ſea, ſome ſay that men may ſayle through betwixt the point and theſe rockes. But a little within or to the weſtwards off the Cape de Pinas, lyeth a great rock, betwixt that rocke and the land men may ſayle through.

When men are within the Cape de Pinas, then lieth Avilles three leagues from thence ſouthſouthweſt which is a good tyde-haven, where a great ſhippe may well goe in at halfe flood, alſoo there is a good road before this haven in 6 and 7 fathom.

For to ſayle in there, men muſt goe in by the e. land, the weſt-land is farre off ſhoale, there ſtandeth a little Chappell upon the eaſt-land, men muſt ſayle in cloſe by it, and anchor a little wayes within two rockes that lye on the eaſt ſide, a little within the havens mouth. The towne lyeth a league further up. From the weſt point runneth of a riffe, and lyeth inwards alongſt the haven, towardes the town, ſo that it is there very ſhoale on both ſides. On the weſt ſide without the haven in the bight, lye 2 great rockes right before the little Church in the Sand-bay, men ſayle round about them, but it is not very cleane: but without the rocks good anchor ground in 7 or 8 fathom, over againſt the little Church that ſtandeth againſt the high land.

From Avilles to Luarca is 6 leagues and from Luarca to Ribadeus w. ſ. w. 6 leagues, & from aviles to Ribadeus ſ. ſ. w and by w. 12 leagues.

From the eaſt point off the havens mouth of Ribadeus, lyeth off a ledge or riffe of rocks towards the w. ſhoare, you may ſound in about it in foure fathom, or foure fathom and a halfe: or elſe if you keepe the little towne Caſtropoll even without the point, ſo ſayle right in with it, then you ſhall not come too neere the foreſayd ledge, but you ſhall ſayle far enough alongſt to the weſtwards of it. The w. point ſheweth it ſelfe when you come in out of the ſea, like an Iſland; upon it at the north end ſtandeth a flat tower, allmoſt like the tower in the Groyne, but not ſo great. About thwart of that Tower lyeth a ſuncken rocke a little wayes from the land, you muſt look out for it, and take heed of it, when there commeth in any great ſea, you can eaſily eſpye it by the breaking of the ſea upon it, but not with ſmooth water: at the very loweſt water it commeth even with the water. The w. ſhoare is fowle and rocky: there runneth off to the ſouthwards of the foreſayd Tower alſo a fowle ledge or riffe of rockes, at leaſt halfe wayes over the havens mouth, and at the ſide of it you cannot uſe the lead. When you are paſt the ledge or riffe that lyeth of from the eaſt ſhoare, you muſt run in about it, and edge in ſomewhat to the e. ſhoare, and ſayle in alongſt by it untill that you are paſt, or come to the end of the foreſayd ledge or riffe of rockes, which lyeth of from the weſt ſhoare, as ſoone as you ſhall bee paſt it, you muſt luffe up about it towards the weſt ſhoare, for to give the e. ſhoare (within the havens mouth) a birth, which is a great wayes within very flat or ſhoale, but on the w. ſide it is deep water. There ſtandeth a little Tower on the w. ſhoare a little within the point, where the riffe lyeth of, which you ſhall ſee when you are come within the weſt point, and run alongſt by the riffe, when you get that little tower w. or thwart of you, then are you at the end of the riffe, then you muſt ſayle towards that little Tower, untill that you come to the w. ſhoare, and run in alongſt by it, untill you come before the Towne, there you muſt lye with an anchor to ſeawards, and with a cable faſt on the rockes.

A little league to the w. wardes of Ribadeus lyeth a tyde-haven, he that commeth from the w. alongſt by the ſhoare thward of it, ſould lightly thinke that to bee the haven of Ribadeus, but it is light to diſcerne from it by theſe markes following. On both ſides of this tyde-haven are the coaſts all high land, but on both ſides of the havens mout of Ribadeus, it is low land. Alſo there lyeth a high ſharpe hill & very eaſy to beknowne, which ariſeth out above all other hills thereabouts, which may bee knowne at leaſt 7 or 8 leagues of, upon it lye ſome heapes af ſtones appearing like little houſes when that you have that hill ſ. ſ. w. from you, ſayle in ſo right with it, then you ſhall bee with the land right before the havens mouth of Ribadeus.

Northweſt from Ribadeus about 8 leagues, lyeth the Cabo de Brilo, a little to the weſtwards of it lyeth the little towne Viverus. To the weſtwardes of the Bay of Cypriaen (where men may anchor in ten fathom) lye two great high rockes: w. north w. from theſe rockes about a halfe league lyeth the Iſland S. Cyprian, right before the haven

haven of Viverus, whereby this haven is eaſy to be knowne, you may ſayle about on both ſides of this Iſland into the haven of Viverus, in all alongſt in the middle of the channell ſouth and ſouth and by w. untill you come before the town, being within, you may anchor where you will either on the e. or w. ſide, it is there ſhoale water of 5, 6, 7, & 8 fathom, according as you run farre in.

Of the Tydes and Courſes and Streames.

Upon the Coaſts of Biſcay wee find no runnings of ſtreames, but a ſouth e. and north w. moone maketh upon the whole coaſt the higheſt water, but within the Rivers a point later.

Courſes and Diſtances.

From Saint Sebaſtiaen to Gateria weſt and by north 7 leagues.
From Gateria to C. Martinchaco weſt and by north 5 leag.
From C. Martinchaco to Caſtro w. ſ. w. 9 leagues.
From C. Martinchaco to M. S. Antony, weſt and by ſouth 13 leagues.
From M. S. Antony to S. Andero or Lalata weſt and by ſouth 4 and a halfe leagues.
From S. Andero to Rio de Sella weſt ſomewhat ſoutherly 16 leagues.
From Rio de Sella to C. de Pinas w. & by n. 21 leagues.
From C. de Pinas to Avilles ſouthſouth w. 3 leagues.
From Luarca to Ribadeus w. ſ. w. 5 leagues.
From Ribadeus to C. de Brilo n w. 8 leagues.
From C. de Brilo to Iſle de S. Cipriaen n. w. 3 leagues.
From C. de Pinas to Ribadeus ſouth weſt and by weſt 13 leagues.
From Cape Martinchaco to Arcaſon north e. eaſterly, 28 leagues.
From C. Martinchaco to Uſe, n. eaſterly 60 leagues.
From S. Andero to the Seames n. n. w. 92 leagues.
From Cape de Pinas to the Tower of Cordan e. n. e. & north. e. and by e. 75 leagues.
From Cape de Pinas to Porthus or S. Martins Iſland, the courſe is n. e. eaſterly 80 leagues.
From Cape de Pinas to Bell-Iſle, the courſe is north n. e. 80 leagues.
From Cape de Pinas to the Seames an. 81 leagues.
From Cape Pinas to Cabo de Veilli in Ireland north and by w. weſterly 170 leagues.
From Cape de Pinas to Ortegall w. & by north weſterly 29 leagues.

Heights.

Bayone lieth in 43 degrees, 46 min.
The Cape Martinchaco lieth in 42 degr. 46 or 48 min.
The C. de Pinas lieth in 43 degrees, 52 or 53 min.
The whole coaſt of Biskaye betwixt Cape de Pinas and Martinchaco, lyeth in about 43 degrees, and 43, 44, or 45 minutes.

How theſe Lands doe ſhew themſelves at Sea.



Thus ſheweth the C. Martinchaco and the land to the e. warſts of it.



To the w. wards of Bilbao towards Caſtro, men ſhall ſee a high ſharpe hill and ſheweth thus towards Caſtro.



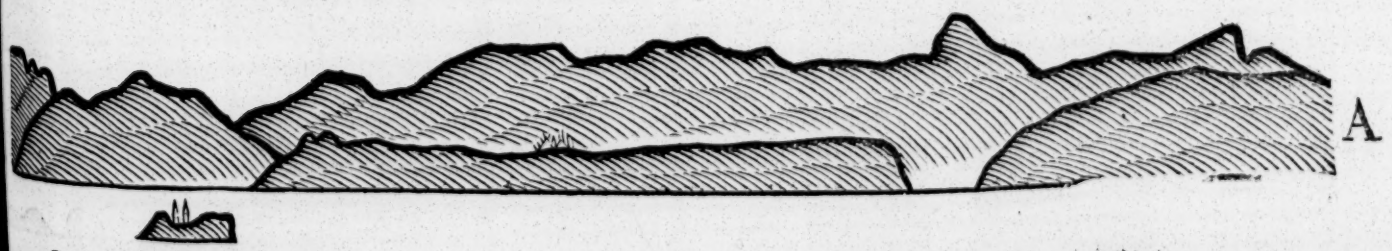
Thus ſheweth the land to the e. wards of Bilbao, when men fall there with the land.



Thus ſheweth the land betwixt the Cape Martinchaco and Bilbao.



Thus ſheweth Bilbao and the land to the w. wards of it, when you are thwart of it.



When the ſharpe hill over againſt the haven of Bilbao is ſouth and by w. from you, then the land ſheweth as in this and the following figure may be ſeene, the A A belong one to the other.



Caſtro.



Laredo.



Thus ſheweth the hill of S. Antonio lying at the w. ſide of Laredo.



The hill of S. Antonio ſheweth thus when it lyeth ſ. ſ. e. from you.



The land to the eaſtwards of Laredo, being ſouth from you, ſheweth th us with a ſharpe hill.

S. Antony.



Sand-bay.



Cape Keſgo.

The land betwixt the weſt poynt of Bilbao, and C. Keſgo to the weſtwards of Mount S. Antonio, ſheweth at ſea when you ſayle alongſt by it, as is poutrayed in theſe two figures here above,



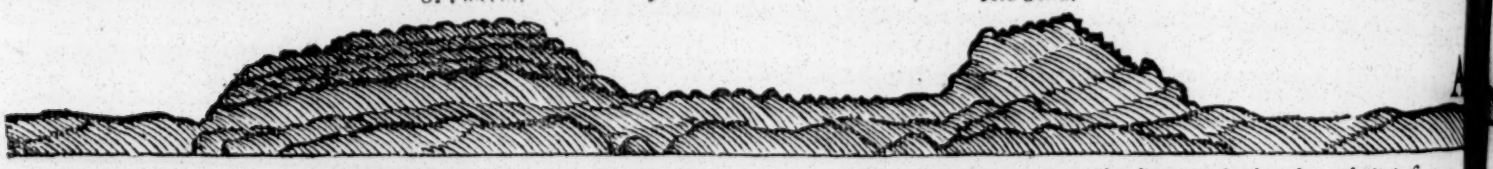
Thus ſheweth the land of Biskaye betwixt Laredo and Rio de Sella, when you ſayle alongſt by it.



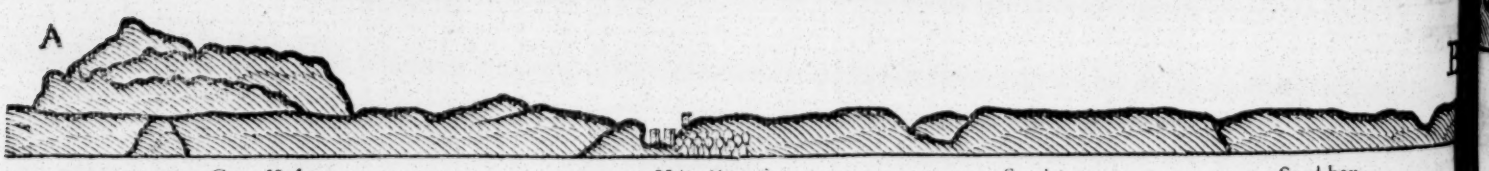
Thus ſheweth the Land from Rio de Sella of, to Cabo de Pinas, when you ſayle alongſt by it.

Theſe foure figures following belong one to the other, the like letters, as AA, BB, CC, one to the other, and is the coaſt from the eaſtwards of C. Vincent to C. de Pinas.

S. Vincent. Rio Sello.



Thus ſheweth the land from the e. wards of S. Vincent untill paſt Rio de Sella, when the hill with the three hils is foure leagues thwart from you, and Rio de Sella is foure leagues ſouthweſt from you.



Cape Keſgo. Villa Vicioſa. Sand-bay. Sand-bay.

Thus ſheweth C. Keſgo, Villa Vicioſa, and the land to the weſtwards of them, when C. Keſgo is w. 4 leagues, and Villa Vicioſa foure or five leagues ſouthſouthweſt from you.

Sanſoen.



Sand-bay.

Thus ſheweth the land of Biſkaye, when you are thwart of Gion.

This is the remainder of the three former figures, the CC, being joyne together.



Channell to Tores.

Thus ſheweth the land when you are by Tores.

The three figures following one to the other, the like letters one to the other, and ſhew the riſing of the land on both ſides of the Cape de Pinas, to wit, when the Cape Pinas is about foure leagues ſouth, ſomewhat weſterly, and the great hill to the eaſtwardes of it is ſouth e. from you.

Southeaſt.

Southeaſt.



This hill lyeth moſt commonly covered with ſnow.



C. Pinas.



Thus ſheweth the land of Avilles, when you are thwart of it.

Theſe three figures following belong one to the other, at like letters one to the other, and ſhew the riſing of the landt betwixt C. de Pinas and Ribadeus, when you ſayle alongſt cloſe by the land.



This is the eaſtermoſt towards C. de Pinas, when the land againſt Z, is ſouth from you.



Thus ſheweth that land againſt Z, being ſouth from you not farre of.



Ribadeus.

Thus ſheweth the land betwixt Luarca and Ribadeus.

Theſe two figures following belong one to the A A, together.

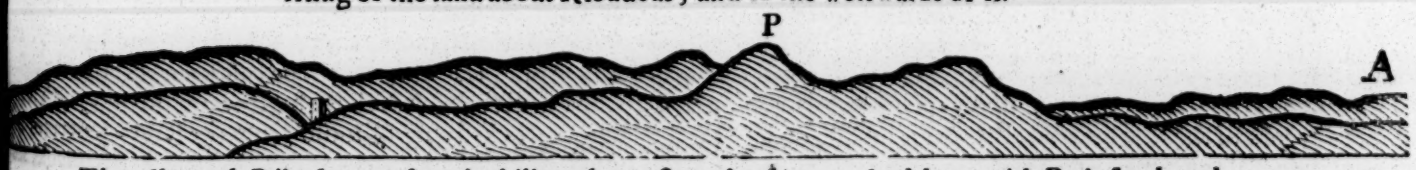


Thus ſheweth Ribadeus, when you are thwart of from it about a halfe league from the ſhoare.



Thus ſheweth the land to the weſtwards of Ribadeus, when the hill by S, is ſouth from you, and followeth to the former figure.

Theſe three figures following belong one to the other at A A, apd B B, and ſhew the riſing of the land about Ribadeus, and to the weſtwards of it.



Thus ſheweth Ribadeus, when the hill to the weſtwards of it, marked here with P, is ſouth and by eaſt from you, foure leagues.



This belongeth to the former, the A A, one to the other.



Thus followeth the two former figures to the weſtwards of Ribadeus, the B B, one to the other.

The

The fifth Demonſtration,

Wich

Delineateth the Sea coaſts of Galiſſia and Portugal, betweene the Iſland of S. Cypriaen, and Camina.

FRom the havens of Viverus or from the Iſland S. Cyprean to C. de Ortegall, the courſe is w. and by n. nine leagues.

Betwixt both, a league to the weſtwardes of Viverus, lyeth the little towne of S. Marcus with a Bay there men may anchor in 7 or 8 fathom, and ride for a ſ. ſ. w. and w. windes.

Two great leagues to the weſtwardes of S. Marcus lyeth the river of Caryns, there is alſo good anchoring, and from thence forth unto the Caſtle of Ortegal; al the coaſt alongſt, it is there every where cleane. From Caryns to Ortegall, the courſe is northweſt, five leagues Ortegall is a great poynt lying out, to the eaſtwards of it, men may lye land-lockt for a northweſt, w. ſouthweſt, and ſouthwinde, thwart of the caſtle is the beſt road, there men may anchor in 8 or 9 fathom When men come from thee Ortegall is eaſy to beknowne, they ſhal ſee the caſtle ſtand againſt the high land.

C. Ortegall. About a league northnorthweſt into ſea from the C. de Ortegall, lyeth a great rane of rocks: betwixt them and the foreſayd Cape, men may ſayle through in ten fathom.

From the Cape Ortegall to the C. Prior, the courſe is ſouthweſt ten leagues: betwixt them both lyeth a Towne Siverus. called Sedaira, by the Dutch Shippers called Siverus, which hath a deepe haven lying in ſoutheaſt. The north ſide off the haven is rocky and fowle, wich you muſt avoyd, and run cloſe in by the weſt land, which is a high land; alongſt by it is 12 fathom deepe, within the havens mouth it is ten fathom deepe, you may ſayl in untill you come before the towne, and anchor there in 6 or 7 fathom.

C. Prior. Five leagues to the weſtwardes of Sedeira lyeth the C de Prior, which is a very ragged hill, to ſee to a far off, as if it where full of people.

Three leagues from the Cape de Prior, lyeth the haven of Ferol: betwixt them both lye two little ſand-bayes. the ſouthermoſt (where in ſtand ſome little white houſes) is the greateſt, and lyeth a little to the northwardes of the north point off Feroll; when you come neere the Baye, the haven beginneth to open it ſelfe, it lyeth e. n. e. and e. & by n. in, amids the channell betwixt two high lands: when you come in, you muſt preſently edge up to the northwardes by the north poynt and anchor there a litte to the weſtwardes of the village it is flat and rocky ground.

For to ſaile into Feroll from the ſouthward. When you come from the weſt, or from the Groyne and will ſayle into the haven of Feroll, then goe away from the little Iſland S. Blaſius north, and north and by weſt, and run a good wayes about, without the ſouth poynt of Ferol; which is very fowle and rocky untill that you ſee te haven open, goe then yet ſo farre to the northwards of the ſouthwards of the ſout point, untill that the haven doe ſhut againe, and run then right in with the foreſayd greateſt ſand-bay, where in ſtand the two or three little white houſes to the northwards off the haven, untill that you be within the ſouth poynt, and the fowle grounds which lye off from it; ſayle then right to the north poynt of the haven, & alongſt by it towards the ſouth ſide, untill that haven doe open it ſelfe againe, and runne then (as before) alongſt in the middeſt of the channel. This haven is ſo narrouw in the comming in, that you may caſt a ſtone upon the land on both ſides, and in that narrow it is 20 fathom deepe. Wen you are in the havens mouth, you may ſee through betwixt the Iſland Siſarga, and the maine land to the ſ. wards of it.

For to ſayle into the Groyne. To ſayle from Ferol to the Groyne, the courſe is ſouth, and ſouth and by weſt 3 leagues, when you come neere the weſtland, you muſt give it a birth, at leaſt of foure or five Cables lengths, becauſe it is not very cleane. When you come by the poynt where the Caſtle ſtandeth upon, you ſhall ſee then alſo a litte Iſland with a little houſe upon it, you may ſayle alongſt by it within a halfe cables length, and runne about by it up to the weſtwardes, untill you come before the Fiſher village, and anchor there in ſixe, ſeven, or eight fathom.

From Cape de Prior to the Groyne, the courſe is ſouth and ſouth and by weſt five leagues.

Eaſtnortheaſt from the foreſayd Iſland where the Caſtle ſtandeth upon, goet in a Sound ſoutheaſt, five or ſixe leagues within the land, to Bitanze, where you may anchor on the weſt ſide under a row of rocks in 10 or 12 fathom, alſo you may ſayle ſoo deepe in, that you can ſee no ſea.

To the northwards of that Sound, over againſt the poynt of the Groyne, lyeth alſo an other haven or Sound, called Ponte de Mas, on the north ſide lieth a row of rockes, where men run alongſt to the ſouthwardes of them: men may alſo ſayle there ſo deepe in, that they can ſee no ſea. A good wayes within lyeth a great bridge over the River.

Het that commeth from the weſt off from the Iſland Ciſarga & is bound into the Groyne muſt give the north point, or the weſt point of the Groyne (where the tower ſtandeth) a birth of 4 or 5 cables lengths, as before is ſayd, which point is rocky and fowle farre from the ſhoare, and run then eaſtſoutheaſt, and ſoutheaſt about by the poynt, and afterwardes ſ ſ.e. unto the little Iſland with the Caſtle and about by it, as is before ſayd.

The little Iſland Ciſarga, of the Dutchmen called Ceſaire, is fowle round about, & lyeth from the poynt of the Groyne, due eaſt and weſt diſtant 7 or 8 leagues, from the haven of Ferol weſt and by ſouth, from the C. Prior. w ſ. w. and ſouthweſt and by weſt, and from the C. de Ortegall ſouthweſt, and ſouthweſt, and by weſt 18 or 19 leagues.

From the Iſland Ciſarga ſouth and by weſt, and ſ. ſ. weſt lyeth Queres, a good haven alſo for great ſhips, the weſt ſhoare is cleane, but the eaſt ſhoare is fowle, therefore men muſt ſayle alongſt by the weſt ſhoare, when they are betwixt the two lands, then they muſt goe in amids the channell, unto the poynt, and then run up to the weſtwardes a great halfe league in, and anchor there in 7. 8. and nine fathom.

From the Iſland Ciſarga ſouthweſt and by weſt, and w. ſ weſt 12 leagues, lyeth the eaſt point of Monſie, called Cabo de Bylem, which is a high ſteepe poynt, with many ragged rocks lying of looſe from the land, where of the greateſt, being like a tower, doth ſhew it ſelfe black, and is called the Munck.

There lyeth alſo a great rane off rockes right before the haven or ſound of Monſie, ſouthweſt and by ſouth from the Munckt, at leaſt two or three cables lenghts long, but the innermoſt end of it lyeth from the Munck ſouth and by weſt. When men ſal with the land of Monſie, it is all double land, about the Cape de Fineſterre lyeth a high white ſand, lying in within the land ſandbay.

Alſo men may ſee comming about the C. de Finiſterre a ragged hill which runneth a longſt ſo farre to the ſouthwards that men may ſee it before the Mores.

He that is bound in for Monſie, comming from Ciſarga, muſt goe in cloſe alongſt by the C. de Bylem, or Bellem:

de Ortegal

Sisarga

Ferol

Ponte de Mus

Fontenne

Corunna

G

A

T. Cysarga

Cairea

Muros I.

C. de Roam

C. Corvine

Caerte van

LISSIEN

Portugal. C de Finis terre en Camina.

't Amsterdam

Theuniſz. Boeck-verkooper op't wa-
ter inde Loots-man

Ponte vedra

Illana

Vigo

Camas

Camina

Bajona

Puente nova

Villa nova

Monte Laurio

I. Salure

Clip

Monte Farbeira

Blyshes

Peonay

S. Thome

R. Rosso

Rondela

this poynt is altogether a ragged high ſharpe land of ſteep rocks, as before is ſayd, and when you are by that poynt, then you muſt keep the Cape de Coriane a ſhipps length without the C. de Koto, ſoo long untill that the Church of S. Maria come without the poynt of Monſie; run then in at the eaſter channel ſ. ſ. e. upon theſe markes, untill you be paſt the Church, then you ſhall ſee a row of rockes, run in behinde or within them, and anchor there before the village of Monſie in 5, 6, or 7 fathom. When you ſaile thus from the cape de Bylem to Monſie, then the rocks (which lye in the middeſt before the Haven) remaine about an Engliſh mile to ſeawards on the weſt ſide of you.

For to ſayle in at the weſter channell, you muſt goo in e. ſ. e. in different neare alongſt by the land, and when the foreſayd Ladies Church commeth without the poynt, then you muſt ſayle to wards the Rockes, which lye before Monſie, as is before ſayd, and anchor within the rockes in 7 or 8 fathom, but runne not too farre in, becauſe there ſhooteth of a ſhoaly riffe alongſt the Haven, where of you muſt take heed.

The eaſter channell is better to come into, then the weſter channell, ſayle not into Monſie before that you ſee the foreſayd Church without the poynt, you may alſo anchor on the n. ſide of the haven in 5, 6, or 7 fathom.

To the ſ. wards of the village of Monſie is a bay where the foreſayd rif or ſhoale lyeth before, lying e. n. eaſt at leaſt 2 cables lengths alongſt the Haven

Out Ladies Church and the Munck lye one from the other n. and by e. and ſ. and by w.

Soutweſt from the cape de Bellem 3 leagues lieth the cape de Coriane.

From cape de Coriane it is ſouth and n. three leagues to cape de Finiſterre: betwixt the two capes is Sand-bay where men may anchor to the e. wards of a great rock in 5 or ſeven fathom. This is a great Bay which goeth in far into the land. At the n. ſide of this Bay lye rocks under water, where of men muſt take heed.

About a league to the eaſtwards of cape de Finiſterre on the ſouth ſide, lyeth the Haven of Seche or Corcovia, & is called by the Dutſch Schippe-maſters, Corck Bayone. Betwixt this Haven and the cape lye two ſandbayes, the firſt, or that which is next unto the cape, is the greateſt, and by the ſecond goeth in this Haven north, in eight & nine fathom. On the eaſt ſide of the Haven lyeth a great Rocke, and about ſouthſouthweſt of from that Rock, almoſt in the middeſt of the Haven, lyeth a ſuncken rocke under water: but run in north untill you eſpye the towne on the weſt ſide, and anchor there in ſix or ſeven fathom. Within upon the River lieth alſoo a Village, or little towne, about n. northeaſt from you.

From cape de Finiſterre to the Haven of Mores, the courſe is ſ. e. 5 great leagues, when you come about the cape de Finiſterre, you ſhall ſee a high ragged hill which runneth ſo farre to the ſouthwards, that you may ſee it alſo before Mores, that is a good mark for to know the land by there abouts.

When the foreſayd ragged Hill is N. e. from you, then are you thwart of cape de Finiſterre, and then the hill Monte Lauro, which lyeth upon the n. e. poynt of Mores, lyeth e. n. e from you, that is a highcloven hill which is alſo good to know.

Southeaſt three little leagues from the cape de Finiſterre, lyeth a rane of rockes under water, and eaſtſouth-eaſt about two leagues from theſe rockes, lye alſo ſome rockes above water a little to the northwards of Monte Lauro, or the Sound of Mores, and lye from Monte Lauro weſt and by ſouth. Alſo there lye a deale of rock to the ſouthwards of this Sound of Mores, and right in the midſt of the Sound lyeth alſo a ſuncken rock about ſ. e. of from Monte Lauro.

He that wil ſayle into Mores, he muſt bring Monte Lauro northeaſt and by north of him, and ſayle in ſo right with it, and then hee ſhall not come too neere the fowle ground or dangers: when hee commeth then by Monte Lauro, hee ſhall ſee the foreſayd rocks lying out to the northwardes of Monte Lauro, he muſt leave them as alſoo the poynt of Monte Lauro two or three cables lengths on the larboard ſide of him, and ſayle in ſo alongſt by them, untill that hee come paſt the ſecond poynt, leaving the ſunken rock (which lyeth in the midſt of the Sound) on the ſtarboard ſide of him: and when the fiſher village which ſtand to the northwards of Monte Lauro commeth to ſtand altogether bare; then he is within the ſunken rock which lyeth in the midſt of the Sound ſouth and by eaſt eaſterly from the e. end of the foreſayd Fiſher village.

When you come by the ſecond poynt, you muſt runne in about it within a cables length, and edge up to the northwards, untill you come before the village, or up to the weſtwards before the towne, whery you pleaſe, and anchor there in 12 or 13 fathom.

If you will ſayle into Rio Roxo, then run about without the rockes, which lye to the ſouthwards of the Mores, and goe in ſoutheaſt and by ſouth, untill that you come before the Haven of Rio Roſſo, or Roxo; then you ſhall ſee a great many of rocks, lying of from the northland, allmoſt unto a great rock, or Iſland, called Salure: betwixt theſe rockes that lye out there, and the Iſland Salure, you may well run through about to the northwards of the Iſland; but it is very narrow, by reaſon of the a foreſayd rockes, which lye of from the north land, therefore ſayle about to the ſouthwards of the ſame Iſland, indifferent cloſe alongſt by it, leaving it on the larboarde ſide, or to ſeawardes of you untill that you ſee the Sound open, and then runne in keeping the middle of the channell, unto that Iſland Roxo, which you ſhall ſee lye in the middeſt of the haven, when you come neere it, you may anchor under the ſ. land, there are two Sand-bayes, where is good anchor ground. *Fo-to ſayle into Rio Roxo.*

About two leagues ſouthweſt from Rio Roxo lyeth a ſuncken rock, John Claeſz Bors of Sardam, did ſayl upon it, and there loſt his ſhippe the 20 of February 1613. in the night.

From Rio Roxo, or the Iſland Salure, unto Ponto Vedra, or the Iſland Blydones, the courſe is ſouthſoutheaſt foure leagues, betwixt them both it lyeth an Iſland called Monte Carbela; within it, is three fathom deepe. Right before the haven of Ponte Vedra lyeth the Iſland Blydones, which men may ſayle round about. On the north ſide it is not deeper then five or ſixe fathom. There lye alſoo within the Sound, on the north ſide two rockes called the Boos or Oxen. On the ſouth ſide of Blydones is the right fareway for to ſayle into Ponte Vedra, this haven lyeth in northeaſt untill within the Iſland: ſomewhat further in the midſt of the haven lieth alſo another little Iſland which you muſt alſo goe to the ſouthwards of, therefore goe in eaſtnortheaſt alongſt by the ſouth-land, untill that you ſee the flat tower which ſtandeth upon the ſouth-land, & then you muſt run over a banck, right on with the point of Ponte Vedra, within it lyeth the towne, thwart of the flat tower, men may anchor in 8 or 9 fathom: This haven is at ſome places foure fathom deepe. *Ponte Vedra. M. Carbela. Blydones.*

Five leagues to the ſ. wards of the Iſlands of Blydones lye the Iſlands of Bayone, when men come in out of the ſea, right with them, ten theſe Iſlands doe ſeeme to be all gray and black rockes, and lye to ſee to, as if they were three Iſlands, although that the ſea doe run through them, but at one place, betwixt each is ſaddle or valley. *Iſlands of Bayone.*

Within the land alongſt over theſe Iands, men ſhall ſee two high hills very eaſy to bee known, the eaſtermoſt hath three high hommocks, and the weſtermoſt two with valleys betwixt the hommocks; a little to the eaſtwards of the eaſtermoſt hill men ſhall ſee a white Abbey, ſtand againſt the high land, whereby this land is very eaſy to bee knowne.

You may ſayle within theſe Iſlands of Bayone either to the northwards or to the ſouthwards; but at the north e. poynt of the Iſlands lyeth a rocke under water, about a cables lengt of from them, where of you muſt take heed, *For to ſayle into Bayone, from the northwards.*

heed, & anchor in 10, 11, or 12 fathom on the eaſt ſide of the Iſlands.

Hee that will ſayle in to the northwards, muſt run in betwixt the Iſlands and the maine land, keeping neere about the middle of the channell, but neereſt to the Iſlands untill that the Sound of Virgo, or Cannas bee open, and then ſayle in to the eaſtwards there is a broad Sound, where men may anchor on both ſides, to wit, on the ſouth ſide before Vigo, and on the north ſide before Cannas in twelve or thirteene fathom.

Vigo Cannas.

Alſoo men may ſayle further in about the ſouth poynt of Rondella, where men may ſave a ſhippe in the oaze, without anchor or cables.

At the point of Vigo lyeth a little Iſland, het that commeth in to the northwards of the Iſlands, and is bound in for Bayone, may ſayle through betwixt that little Iſland and the point Vigo, right in with Bayone, to wit, alongſt a little to the weſtwards of the poynt, untill hee come before the towne, and anchor there in 4, 5, or 6, fathom.

Betwixt that foreſayd little Iſland, and the poynt of Vigo, it is at high water 4 fathom and a halfe, & at low water three fathom and a halfe deepe, men muſt (ſayling through there) give the poynt of Vigo a birth, becauſe of ſome ſuncken rocks that lye of from it. When as men lye in the roade before Bayone, in 5 or 6 fathom, they may ſee thee Iſlands of Blydones through betwixt the foreſayd poynt of Vigo, and that little Iſland.

From that ſame little Iſland lyeth to the weſtwards another little Iſland or rocke, betwixt them both it is fowle, ſo that men cannot ſayle through betwixt them, and from that weſtermoſt little Iſland lyeth a fowle riffe of ledge of rockes, ſ. w. of towards the point of the land of Bayone, where of men muſt take very good heed, whether you come from the n. wards & will ſayle through betwixt that riffe & the Iſlands of Bayone, or els come in from the ſ. wardes, betwixt the Iſlands and the maine, and will goe in for Bayone.

That riffe lyeth at low water in many places dry, the outermoſt rockes thereof, and the poynt of Bayone, where the Caſtle ſtandeth upon, lye ſoutheaſt and ſoutheaſt and by eaſt, and northweſt and northweſt and by weſt an Engliſh mile aſunder, therefore he that commeth from the northwards, and wil goe into Bayone to the weſtwards of that riffe, that is betwixt the riffe and the Iſlands let him goe ſo long to the ſouthwards, untill that the Caſtle of Bayome come to be e. ſ. e and eaſt and by ſouth from him, and ſaile then towards it, and then he ſhal run farre enough alongſt to the ſouthwards of it.

At the ſouth end of the Iſland of Bayone, lyeth a great rock, with a deale of ſmall rockes round about it, men may ſayle very cloſe alongſt by them, but at high water the outermoſt rocks lye under water, where of men muſt be mindfull, cloſe by the rocks it is 20, and 25, and 26 fathom deepe. From the point of the maine land over againſt the ſouth end of the Iſlands, runneth of a ledge of rocks, where upon it breaketh very much, when the ſea is grown, where of alſo men muſt take heed.

When you come from the ſouthwards; or out of the ſea, and will ſayle in for Bayone, about to the ſouthwards of the Iſlands with a ſoutherly or ſouthweſt winde, then run right with the ſouth point of the outermoſt land of Bayone, untill you come neere about a halfe league of the land, and then alongſt by the ſhoare, unto the outer point on the ſouth ſide of the comming into the Bay, where that foreſayd riffe runneth of, which lyeth of low, give that riffe a birth, and run in betwixt it and the foreſayd rockes at the end of the Iſlands, northeaſt, or eaſtnortheaſt in, according as you ſhall come in out of the ſea, leaving the riffe on ſtarboard, and the rockes with the Iſlands on the larboard ſide untill that you come to the end, or to the n. wards of the riffe, the north end, or the outtermoſt point of that riffe at the ſ. poynt, and the poynt Bayone where the Caſtle ſtandeth upon, lye neareſt e. and by north, and w. and by ſouth a little league aſunder. When as then you have the foreſayd riffe (on the ſouth ſide) upon your broad ſide, or els are too the northwardes of it; and that the Caſtle doe ſtand eaſt, or thereaboots from you, goe then right in with the Caſtle leavingh that foreſayd other riffe (which lyeth of ſouthweſt from the little Iſlands at the point of Vigo) on the larboard ſide of you. If you bring the poynt of the Caſtle not to the ſouthwardes of e. ſ. e. then you cannot take any hurt of the northermoſt riffe.

Iſland of Bayone.

The outer rocks of that northermoſt riffe, (which ſhooteth of from the two foreſayd little Iſlands) and the riffe which ſhooteth of from the ſouth poynt of the land of Bayone, where men muſt ſayle through betwixt lye one from the othere ſouthweſt, and ſouthweſt and by ſouth, and northeaſt and northeaſt and by north about an Engliſh mile aſunder. When you come neere the Caſtle, then come not very neere the ſhoare, which is not very cleane, and when, as then you come thwart of the innermoſt point of the Caſtle before that you begin to ſee the Towne of Bayone, from behind the point, you muſt looke well out before you: for from that ſame innermoſt point, and from the Caſtle, there lyeth of a ſuncken rock about halfe a cables length from the foreſayd point, where upon remaineth at low water no more then nine or ten foote water, keepe therefore (thwart of it) ſomewhat of from the point. When as you begin to ſee the Towne of Bayone, then luffe up ſuddenly ſouth and ſayle before the Towne, and anchor there in five or ſixe fathom, where you pleaſe, or els that the points of the Caſtle come againſt the weſtermoſt Iſland of the two which lye of from the north poynt of the Bay, or poynt of Vigo, there it is good oaſie ground that holdeth well, ſet your anchors when you moore, northweſt and ſouthweſt, the beſt anchor to the ſoutheaſt; from thence over the high land you ſhall have commonly the hardeſt windes.

If you muſt turn too & againe into the bay, ten take very good heed, when you run of from the Caſtle, that you run not to far over ſ. ſ. e. right before the Towne, ſ. e. and by eaſt, & e. ſ. e. from the roade about a musketſhot, lyeth another ſuncken rock, which at low water is even uncovered. it lieth a ſmall cables length of from a little point in the ſouth point of the Bay, where upon ſtandeth a little houſe, appearing a farre of like a great green rock; you muſt be very carefull of it; eſpecially when you runne over towardes the ſouthſoutheaſt.

But hee that is bound into Vigo or Cannas to the ſouthwardes of the Iſlands, ſhall ſayle in betwixt that ſouthermoſt Iſland and the point of the land of Bayona, all alongſt in the middle of the channell, northeaſt, or northeaſt and by north in, at leaſt two great leagues, keeping the norther haven two ſhippes lengths open, ſo long untill Cannas come to the north-land without the point of Vigo: and then hee muſt leave the point of Vigo on the ſtarboard ſide of him, & run in (keeping the middle of the channell) betwixt the northland and the Towne Vigo, and anchor there either before Cannas or Vigo, where hee pleaſeth in ten or twelve fathom.

A little to the northwards of Camina, lyeth on the S. coaſt a high ſteep hill, above in the top with a cliſt or ſaddle, being called S. Rego, it is allmoſt of faſhion like Monte Lauro, but at leaſt once ſo high againe, this hill is a very good mark for to know te places thereabouts. About halfe wayes betwixt this hill and Bayone, lyeth an Abbey upon the ſide of the land, that is alſo a good marke for to know Bayone for him that commeth from the ſouthwardes, but the chiefeſt markes are there two foreſayd high Hills within Bayone, the one with two, the other with three hommocks, when that with the three valleys or ſaddles is e. ſ. e from you run in then right with it, you ſhall not faile to fall with the land, right with the Iſlands.

Five leagues to the ſouthwards of the Iſlands of Bayone, lyeth the haven of Comina, a broad haven, where you muſt go in (with greas ſhips) at the higheſt water. In the havens mouth, which lyet in norſtheaſt and by eaſt, lyeth a rock neereſt the ſouth ſide; cloſe to the northwards of this rock, is thee deepeſt water, for to ſayle in or

in or out. Within in the haven, on the north ſide, lyeth a little Iſland, and upon it ſtandeth a little Tower, you muſt keep that over the Tower, which ſtandeth upon the northland, and ſo muſt run in right with them.

In this havens mouth is at halfe flood two fathom water.

At the northſide of the haven it is altogether ſhoale water and very rocky and fowle: there ſhooteth of a ledge of rocks or riffe where of men muſt take good heed.

Of the Tydes and Courſes of the Streames.

On the coaſtes, as on the former, a ſouthweſt and northeaſt moone maketh high water.

A ſouthweſt and northeaſt moone maketh full ſea at the foreſayd places, on the ſea-coaſt, and within the havens a poynt later.

A northeaſt & ſouthweſt Moon maketh on theſe coaſts full ſea, like as on all the coaſtes lying on the great ſea, there goe alſo no ſtreames alongſt the land, becauſe (through the ſwelling of the Ocean ſea) the flood commeth right on againſt the coaſtes, and falleth right in and out at the Havens.

How theſe landes doe lye one from the other, and from other lands.

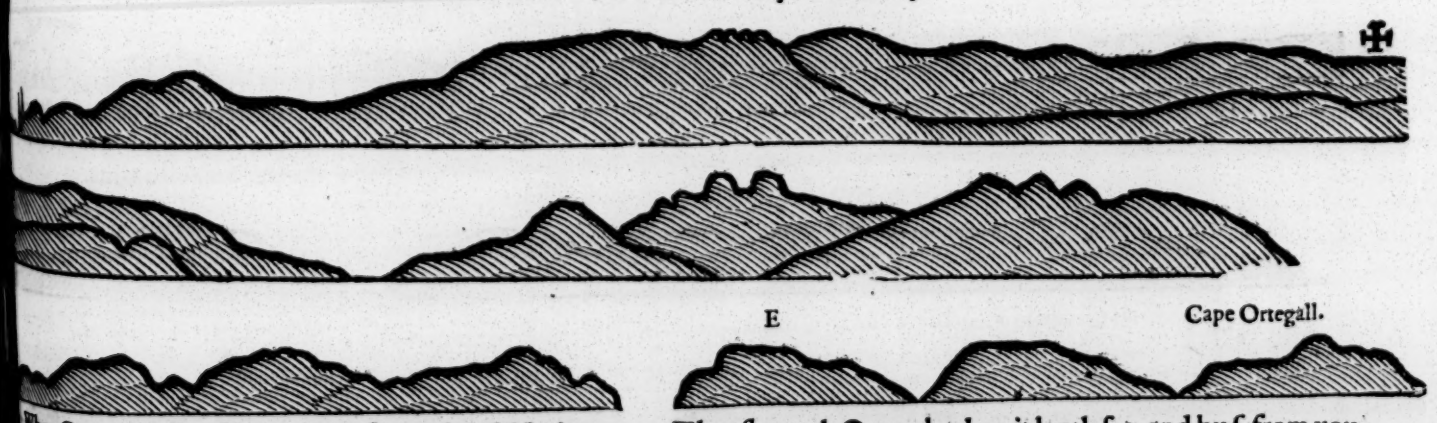
From Cape Ortegal to Siverus ſ. w. 5 leagues.
From Siverus to Cape de Prior ſ. w. 5 leagues.
From Cape de Prior to Feroll ſ. and by e. 3 leagues.
From Feroll to the Groyne ſouth, and ſouth and by weſt, 3 leagues.
From the Groyne to Ciſarga 7 or 8 leagues.
From Ciſarga to Queres, ſouth and by weſt, and ſouth ſouthweſt 2 leagues.
From Ciſarga to Cape de Bylem, or the eaſt poynt of Monſy, ſouthweſt and by weſt, and weſtſouthweſt 12 leagues.
From Cape de Bylem to Cape de Coriane, or Terrovian ſouthweſt 3 leagues.
From Cape de Coriane to Cape de Finiſterre ſ. 3 leagues.
From Cape de Ortogal to Cape de Prior ſouthweſt, 10 leagues.
From Cape de Ortegall to Ciſarga ſouthweſt and ſouthweſt & by weſt 19 leagues.
From Cape de Prior to Ciſarga ſouthweſt and by weſt, 8 leagues.
From Feroll to Ciſarga weſt and by ſouth 8 leagues.
From Cape de Ortegal to Cape de Coriane ſouthweſt & by weſt 33 leagues.
From Cape de Ortegall to Waterford in Ireland north, 168 leagues.
From Ciſargo to Cape Veio north 160 leagues.
From Ciſarga to Silly north and by eaſt 137 leagues.
From Cape de Finiſterre to Moores, or Monte Lauro ſoutheaſt 5 leagues.
From Rio Roxo to Ponto Vedra ſ. ſ. w. 4 or 5 leagues.
From Ponte Vedra, or Blydones, to the Iſland of Bayone ſ. ſ. e. 5 leagues.
From Bayone to Camina ſouth and by eaſt 4 leagues.
From Cape de Finiſterre to the Iſland of Bayone the courſe is ſ. e. and by ſ. 20 leagues.
From Cape de Finiſterre to Port a Port ſ. ſ. e. 42 leag.
From Cape de Finiſterre to Avero ſouth and by eaſt and ſ. ſ. eaſt 53 leagues.
From Cape de Finiſterre to the Burlings ſouth 67 leag.
From C. de Finiſterre to the great Canaries ſ. ſouth weſt ſoutherly 307 leagues.
From Cape de Finiſterre to the Salvages ſouthſouthweſt 273 leagues.
From Cape de Finiſterre to the Iſle of Madera ſouthweſt & by weſt ſoutherly 197 leagues.
From Caep de Finiſterre to the Iſle S. Michael weſt ſouthweſt 247 leagues.
From Cape de Finiſterre to the Iſle Tercera w. ſ. w. and w. and by ſouth 278 leagues.
From Cape de Finiſterre to the ſ. weſt point of Ireland n. and by weſt and n. 173 leagues.
From Cape de Finiſterre to Cape de Claro North 137 leagues.
From Cape de Finiſterre to Waterford, or to the South-eaſt poynt of Ireland, north and by eaſt 185 or 186 leagues.
From Cape de Finiſterre to the Lizard northnortheaſt, 153 leagues.
From Cape de Finiſterre to the Seames, n. eaſt and by n. northerly 112 leagues.
From Cape de Finiſterre to Bell-Iſle n. e. 122 leagues.
From Bayone to the Burlings ſ. and by w. 49 leagues.

Heights.

Cape de Ortegall lyeth in	44 degrees 5 min.
Cape de Coriane in	43 degr. 8 min.
The Cape de Finiſterre lyeth in	43 degrees.
Bayone lyeth in	42 degrees 10 min.

How theſe lands doe ſhew themſelves at Sea.

The 2 figures following belong at croſſes one to the other, & ſhew the riſing of the Land, a little to the e. wards of the Cape Ortegall, when te poynt marketh with D, is 5 or 6 leagues e. and by ſ. or e. ſ. e. from you, and the hill marked with E, is ſ. ſ. w. from you weſterly.



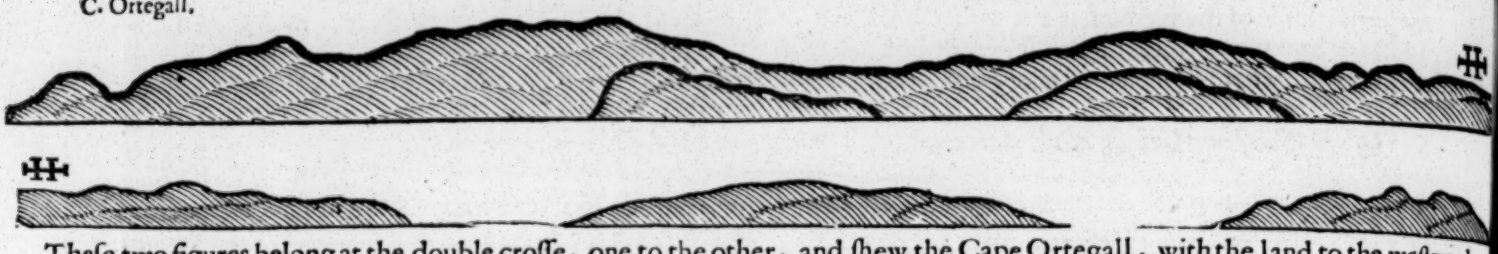
When Ortegal is ſ. e. from you, it ſheweth it ſelfe thus.

Thus ſheweth Ortegal, when it lyeth ſ. e. and by ſ. from you.



Thus ariſeth Ortegall, when the eaſtermoſt hill lyeth ſ. ſ. e. from you, and that you may ſee the eaſt end with cleare ſight, being eight, nine, or ten leagues of at ſea.

C. Ortegall.



Theſe two figures belong at the double croſſe, one to the other, and ſhew the Cape Ortegall, with the land to the weſtwards of it, when the foreſayd Cape is eaſt and by ſouth five or 6 leagues from you.



The land to the eaſtwards of the Groyne ſheweth thus, when it is ſouth and by eaſt from you.



Cape Prior the eaſt poynt of the Groyne ariſeth in this forme.



Cape Prior being ſouthweſt from you 6 or 7 leagues ſheweth it ſelfe thus.



Cape Prior, being ſouthweſt & by ſouth from you 4 or 5 leagues, ſheweth it ſelfe thus.



C. Prior.

When the Cape de Prior is eaſt and by north, eaſterly 3 or 4 leagues from you, it areſeth in this forme.



Thus ſheweth the Iſland of Ciſarga, when you are one league thwart from it.

Thus ſheweth the land of Monſie, betwixt Ciſarga & Cape de Finiſterre when you come from the eaſt, and ſayle alongſt by it.



When Cape de Finiſterre is ſoutſoutheaſt from you, then it ſheweth thus.



The Cape de Finiſterre, being ſoutheaſt ſouherly from you, ſheweth it ſelfe thus.



Thus ſheweth Cape de Finiſterre when it is ſoutheaſt eaſterly from you.



When Cape de Finiſterre is ſoutheaſt & by eaſt from you five or ſixe leagues then it ſheweth it ſelfe thus.



Thus doth Cape de Finiſterre ſhew it ſelfe, when it lyeth 5 or 6 leagues eaſt and by ſouth from you.

Monnick.



Theſe three figures following belong one to the other, at the letter A A, and B B, and ſhew the riſing of the Capes de Coriane and Finiſterre, as is ſhewed in the deſcription here under following.

The



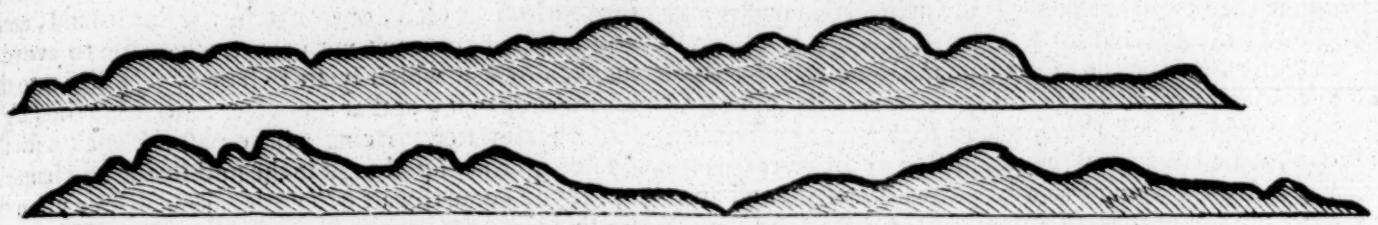
The Cape de Finiſterre ſheweth it ſelfe with the land to the ſouthwards of it, as is pourtrayet in this & the figure following, when the Ragged hill ſtandeth eaſt from you 3 or 4 leagues, & then you ſhall ſee the land to the northwards of it, unto Cape Coriane, northeaſt, unto paſt Cape Coriane, in forme, as in the figure before this.



This followeth the former, and lyeth from the Cape of ſoutheaſt and by ſouth.



Thus ſheweth the Cape de Finiſterre, when the ragged hill lyeth eaſtnortheaſt eaſterly from you, and then the land of Moores lyeth from you eaſtnortheaſt, as is here followingſt demonſtrated.



Thus ſheweth the ragged hill of the Cape de Finiſterre, when it lyeth eaſt and by north from you.



When the Cape de Finiſterre lyeth northeaſt from you, and the land of Moores eaſtnortheaſt, 6 leagues from you, then lyeth the Cape in three parts, and the land of Moores thus.



When the ragged Hill betwixt the Cape de Finiſterre and Moores lyeth eaſt and by north from you ſix leagues of, then it ſheweth thus.



When the high land of Moores is northeaſt & by north from you about 6 leagues, then it riſeth in this forme.

Monte Lauro. The high land of Moores.



When Cape de Finiſterre is northeaſt or northnortheaſt, and Monte Lauro is eaſtnortheaſt 5 leagues from you the high land of Moores ſheweth it ſelfe thus.



Iſland of Bayone.

Thus ſhew tem ſelves the Iſlands of Bayone, and the high land to the ſouthwards of them, when the foreſayd Iſlands are eaſtſoutheaſt, a league or two from you.

Bayone. Abbey. S. Rego.



When the point of Bayone is eaſtnortheaſt, and the high land is eaſt from you, then it riſeth thus, to the ſouthwards of it lyeth the high Hill of S. Rego.



Bayone. Abbey. S. Rego.

When the high Hill S. Rego is eaſt from you, then the high land of Bayone ſheweth it ſelfe thus. Thus Abbey ſtandeth about halfe wayes betwixt S. Rego & Bayone.

The ſixth Demonſtration.

Where in

Are ſhewed the Coaſts of Portugal, from Camina to Paſſage.

Viana. SEven leagues to the ſouthwards of Camina lyeth Viana upon ariver. From the north poynt lyeth off a ledge off rockes thwart over before the mouth of the river, and upon the ſouth ſhoare, ſtand two Fire-towers. If you will ſayle in to this river of Viana, comming from the northwards, or out of the ſea, then run ſo long to the ſouthwards untill that the two foreſayd Fire-towers upon the ſouth ſide of the rivers mouth, come one to the other, and then run in right with them towards the ſtrand, untill that the little tower upon the north-land come over the two houſes; keep them one to the other, & runne then to the rock with the maſt, and ſayle alongſt cloſe to the eaſtward of it, and then you run in alongſt over the Barre or the ſhoaleſt of the rivers mouth, there is at low water with an ordinary tyde two fathom depth. When you are paſt the foreſayd rock with a maſt or beacon, which lyeth on the north ſide of the river: run in likewiſe cloſe alongſt to the ſouthwards of it, and afterwards indifferent cloſe alongſt by the north-land, untill you come before the Town, there runnets of ſometimes a little riffe which you muſt give a birth to, and anchor before the town. When you lye before the towne, there lyeth a little Iſland to the ſouthwards of you, where upon ſtandeth a little Chappell: to the weſtwardes of that little Iſland lyeth a great Banke, which at low water is uncovered, behind that banck it is five and ſixe fathom, & before Viana ſeven, eigt, and nine fathom deepe, when you come in, they may run in about to the ſouthwards of this foreſaid Banck, and come out again before the town, by the little Iſland, where the little houſe ſtandeth upon.

When you come in about a bow ſhot within the ſecond rock with the maſt, there you may well let fall your anchor and bring Cables on the ſouth ſhoare, and moore there by foure cables.

Men may anchor without in the road in 12 fathom, there is the cleaneſt ground for to take in a Pilot. It is a narrow and dangerous barre for to come into.

From Viana to Port a Port, the courſe is ſouth & by eaſt 12 or 13 leagues, betwixt both lyeth Villa del Conde ſeven leagues from Viana and from Metelyn. Villa del Conde is a broad haven, before the haven mouth lye many rockes, where men may ſayle in abouth them on both ſides, to the northwards or to the ſouthwards of them it is five and ſixe fathom deepe; further in lyeth a bank thwart over the haven of two fathom at high water: within in the haven it is 3 or 4 fathom deepe, on the n. ſide it is all full of rocks, which lye moſt under water, but on the ſouth ſide it is deepeſt & ſureſt, and good lying in five and ſixe fathom.

Ville del Conde.

Foure leagues to the ſouthwardes of Villa del Conde lye out the great rocks, called Leſons, right before a little Broad-haven of two fathom depth, called Metelyn, and ſouthweſt from the ſouth poynt of the foreſayd rockes Leſons; about a halfe league to ſeawards, lyeth a ſuncken rock under water; betwixt the land & the Leſons it is 6 and ſeven fathom deep.

Rockes Leſons.

A league to the ſouthwardes of the rockes Leſon lyeth Port a Port. From the north point of the rivers mouth lye off many rockes, allmoſt thwart over the channell. For to ſayle in there; you muſt run in cloſe alongſt to the ſouthwardes of the outermoſt rock, even ſoo neere by it that you may caſt with a ſtone upon it. There ſtandeth a little Chappell upon the north ſhoare right againſt the rock with the croſſe, and alſoo a little white houſe upon the north ſhoare ſomewhat further up upon the river, bring them one in the other, and run in ſo right with them until you bee paſt the Caſtle. In ſayling in ſo, you ſhall not finde leſſe upon the ſhoaleſt of the Barre, then 17 or 18 foot water at halfe flood, & ſhall not come too neere a ſuncken rock, which lyeth without in the rivers mouth, ſomewhat neerer the ſouth ſhoare then the north, whereupon there remaineth at low water no more then 11 or 12 foote water. Being within the Caſtle, goe then right towardes the rock with the croſſe, and ſo cloſe alongſt to the ſouthwards of it, that you may reach it with a boat hoock, or els you muſt run in three or 4 ſhips lengths to the ſouthwards off it, or alongſt by the ſouth-land, untill you bee paſt the rock with the croſſe, for to avoyd a ſuncken rock, which lyeth twhart of it a little to the ſouthwards of it, and at low water is no more then eight foot onder water. Being a little paſt the rock with the croſſe, go then up alongſt in the middle of the channell, untill you come thwart of a great white Tower upon the north-land, there you may anchor in 4 or 5 fathom, or ſayle before the Towne, here it is 3 & 4 fathom deepe. A little paſt the rock with the croſſe is a ſhoale, whereupon remaineth at low water no more then 11 foot water, ſoo that with ſhippes that draw 12 ſoote water, men muſt ſtay for high water, it floweth there ſix foot up and downe with an ordinary tyde.

Port a Port.

On the ſouth ſide of the river goeth in alſoo a Land-deep to the ſouthwards of the foreſayd ſunken rok, which lyeth in the rivers mouth, where the Pilots ſometimes bring ſhips in and out, that is a good channell, and of ten-times it is eaſt too againe of the ſea, ſo that there is no certainty to be written of it, that men ſhould truſt upon.

From Port a Port to Avero, the courſe is ſouth, ten leagues: betwixt them both it is all alongſt a cleane ſand-ſtrand, where men may behold to come neere the ſhoare every where in ten or twelve fathom.

Within the land upon the high land lyeth a black hommock in the land, when that lyeth eaſtſoutheaſt from you then you are open before Avero: when you cannot ſee the black hommock Carmole, then lyeth there a rough ſand-hill to the northwards of the Barre, when that is thwart of you, then are you a halfe league to the northwards of the Bar of Avero.

If you will ſayle in over the Barre of Avero, and that you come before it in ſixe or ſeven fathom, then take heed to three beakons made off maſt, which ſtand upon the ſouth-land, bring them one in the other, and ſayle in ſo right with them eaſt and by ſouth, and e. ſ. e. in over the barre, there is comming in, at halfe tyde, no more then two fathom water, untill that you come by the beakons, you ſhall ſo (being come within the poynts) ſayle alongſt by a dry ſand on the larboard ſide, edge then up north-northeaſt, and northweſt about by that foreſayd dry ſand, untill you come cloſe to the norther land, and run in by it, and then you ſhall leave all the other ſhoals on the ſtarboard ſide, untill that you ſee the River open, and then you ſhall ſee a little houſe upon the ſtrand on the weſt ſide, goe then from then ce up into the River, eaſt and by ſouth, and eaſtſoutheaſt, keeping the middle of the channell betwixt the two lands, untill you come before the Saltponds or Avero, where you may lade your ſhip with ſalt.

The Coaſt of Portugall about Viana, is very eaſy to bee knowne, by the foreſayd hill of S. Rego, which is exceeding high, and lyeth on the ſea ſide: the high land of Viana lyeth two or three double within it.

Betwixt Viana, Ville del Conde, and Port a Port, men ſhall

Cust van

PORTVGAL

't Noordelyckste deel beginnende van Viana tot aen Pissye.

P O R T V

Port a Port

Closster

Villa nova

Mariam

Mallegat Closster

S. Anthony

Clousenaer

Masercel

Ville del Conde

Zurara

Viana

Norões

Esposende

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

A L I I A.

Soutlant

Aveiro

Soutlant

Lagos

Tijbaij

C. d. Mont[illegible]

W 24

ſhal ſee alongſt the coaſt many towers and little houſes Villa del Conde men ſhal ſee at ſea like a great Towne.

The River of Port a Port men may know by the rocks Leſons, they are very high, and lye a little to the northwardes of the River.

The Cape de Montego is a high poynt, and within it in the land are high mountains. The Cape is ſometimes taken to be the Rock, but is eaſie to be diſcerned from it, becauſe of the Burlings, which lye here to the ſ. wards, & to the n. wards of the rock.

The Cape de Montego lyeth from Avero ſ. ſ. w. diſtant 7 leagues: a league to the ſouthwards of it lyeth Paſſage, or the River of Montego, a broad haven. From the Cape de Montego runneth of a fowle ledge of Rocks, a good wayes from the ſhoare, which men muſt avoyd. Under the Cape men may ride for northerly winds in 7 or 8 fathom, a northnorthweſt wind commeth right from the poynt, for ſoutherly windes men may anchor to the ſ. wards of the river of Montego.

From the ſouth poynt of the river runneth of a ſand riffe when you ſayle in there, and that you come in out of the ſea, it ſheweth as if you might ſayle into the ſouthwardes of the riffe, but it is not to be done: you muſt ſayle into the northwards of it. Upon the north poynt ſtandeth the little village S. Chatarina, and a little to the northwards of it a Fiſher village, called Buarcos. Upon the north ſide within the havens-mouth ſtandeth a lime kilne, with a wood of Fig-trees, when you bring them one in the other, and then ſayle ſo right in with them, you runne in right in the channel, there is ſometimes no more then twelve or thirteene foot water at a halfe flood: you may not certainly truſt to the deſcription of this haven; for, in regard it is there ſand-ground, it doth ſhift ſometimes with the great Fruſhut that come the River, and alſoo with ſtormens out of the ſea. From Cape de Montego to the Peniche, or Nova Liſbona, (at the Cabo del Fiſiron, which is the point within the Burlings) the courſe is ſouthweſt and by ſouth ten leagues, there lyeth of a rock from the point, to the ſouthwards of it is a great bay, where men may runne in behind it with barks, and lye landlockt. In that bay lyeth a little town againſt the high land called Artogie, a little to the ſouthwardes of the Cape del Fiſiron lieth a high round hommock, which the Dutchmen cal young Roxent.

From the cape Montego to the Burlings, the courſe is ſ. w. 12 or 13 leagues. Behind the Burlings is a good roade & anchor ground, under the great Iſland before the Hirmitage, there you may anchor in ten fathom, you may come in there from the northwards or from the ſouthwardes, it is there broade and wyde, and every where cleane.

Of the Tydes and Courſes and Streames.

A ſouthweſt and northeaſt Moone maketh at all theſe places (on the ſea ſide) high water, and within in the havens a point or two later, according as they lye farre with the land.

As on all the coaſtes of Portugall, even ſo here alſoo on theſe coaſts a ſouthweſt & n. e. moone maketh the higheſt water.

A. ſ. w. and n. e. Moon maketh on theſe coaſts full ſea, within the havens a poynt or two later, according as they lye far with in the land.

Courſes ad Diſtances.

From Camina to Viana ſ. ſ. e.	7 leagues.
From Viana to Villa del Conde ſ. & by e.	6 leagues.
From Villa del Conde to Port a Port ſouth and by eaſt	6 leagues.
From Port a Port to Avero ſouth	11 leagues.
From Avero to Cape de Montego ſ. ſ. w.	7 leagues.
From Port a Port to the Burlings ſ. ſ. w. and ſouth w. & by ſouth	31 leagues.
From Avero to the Burlings ſ. w.	20 leagues.
From Cape de Montego to Peniche, or Cape del Fiſiron ſ. w. & by ſ.	12 leagues.
From Cape de Montego to the Burlings ſouthweſt	13 leagues.

Heights.

Port a Port lyeth in	41 degrees. 5 min.
Avero in	40 degrees 30 min.
Cape de Montego lyet in	40 degrees 14 min.

How theſe Lands doe ſhew themſelves at Sea.

S. Rego.



Thus ſheweth the coaſt of Portugal from Bayone to Cape de Montego, when you ſayle alongſt by it, about 4 leagues of, the figure following belongeth here to, at the croſſes one to the other.

Cape de Montago.



When that black Hommock where the H. ſtandeth by, is eaſtſoutheaſt from you, then are you thwart of, or open before Avero.

The high Land of Viana.



Thus ſheweth the Land of Viana, and to the ſouthwards of it the Hommock by B is 2 leagues to the northwards of Villa del Conde.

The high Land of Viana.



The land by Viana, and to the ſouthwards of it towards Villa del Conde, ſheweth as is pourtrayed in this and the figure following, by V, is the Rivers mouth of Viana.

Ville del

C



Villa del Conde.

This followeth to the former figure, the Hommocks at C, is two leagues to the northwards of Villa del Conde.

The high land of Viana.

A



Thus ſheweth the foreſayd land of Viana, & to the ſouthwards of it, when Viana, (being by A) is northeaſt from you 10 leagues.

Mettelyne thwart from you.



Rockes about a league to the north of Mettelyne.

Rocks off Mettelyne.

Thus ſheweth the land by Mettelyne, when Mettelyne is thwart from you and that you are cloſe by the land.

Caſtle on the north ſide of Port a Port, when you come from the northward by the land.

The land to the northwards of Port a Port.



This figure belongeth to the former, & ſheweth the forme of the land by Port a Port, and to the ſouthwards of it, when you come from the ſouthwards, you ſhal ſee a little village, within the caſtle of Port a Port, called S. John. A league to the notthwards of it lyeth Mettelyn.

The land to the ſouthwards of Port a Port

Avero.



Thus ſheweth the land betwixt Port a Port and a Vero, when the hig land to the ſouthwards of Port is eaſt and by ſouth from you 4. leagues.

Abbey.



Thus ſheweth the land of Port, when you come from the ſoutwards.



Thus ſheweth the land of Port a Port, when it is eaſtſoutheaſt from you about 4 leagues.

Viana.

Villa del Conde.

Port a Port



Thus ſheweth the land from the northwards of Viana to Port a Port, when you ſayle alongſt by it.

Port.



When Port a Port is ſoutheaſt from you ſeven or eight leagues, then it ſheweth with the land to the northwards of it in this forme.

The ſeventh Demonſtration,

In which

The Sea-Coaſts of Portugal, from Piſſage to S. Uves or Setubal are deciphered.

FRom the ſouth poynt of the River runneth of a ſand-riffe; when you ſayle in there and that you come in out of the ſea, it ſheweth as if you might ſaylo into the ſouthwardes of that riffe, but it is not to be done: you muſt ſayle into the northwards of it. Upon the north poynt ſtandeth the little village S. Catharina, & a little to the northwards of it a Fiſher village, called Buarcos. Upon the north ſide within the havens mouth ſtandeth a lime kilne, with a wood of Fig-trees, when you bring them one in the other, & then ſayle ſo right in with them, you runne in right in the channell, there is ſometimes no more then twelve or thirteene foot water at a halfe flood: you may not certainly troſt to the deſcription of this haven; for in regard it is there ſand-ground, it doth ſhift ſometimes with the great Freſhuts that come of the River, and alſo with ſtormes out of the ſea.

P O R T V

L I A

Het Zuydly
van Piſsag

Piſsaigs

Aljuzye

Penache

Jonge Roxent

Barlenges

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng. en Fran. mylen 20 in een graet

R GAEL
uydlyc Beginnende
iſſage Vues alias

Setubal oste
S Vves
Slot van Palmel
Iroll
Witt huys
't Witte Slot
Ilhas Buenaqua
G A L
Soutlant
Vlissingen
Comra
Lisbona
Pallmas
Rio Tayo leas
Almada
Zuyder
Bobrn
Berkem
S Catryncn Cloosters
Reſuire
Stroos hoek
C de Spichel
Iſſaura
S Giekes
Zuyder calkops
Cruice dicy
Noorder calkops
Calgaris
Roxent
C. Roxent
W 25

ſea. From Cape de Montego to Peniche, or Nova Liſbona, (at the Cabo del Fiſiron, which is the poynt within the Burlings) the courſe is ſouthweſt and by ſouth 12 leagues, there lyet off a rock from the poynt, to the ſouthwards of it is a great bay, where men runne in behind it with barks, & lye landlockt. In that bay lyeth a little town againſt the high land called Artogie, a little to the ſouthwardes of the cape del Fiſiron lyeth a high round hommock, which the Dutchmen call young Roxent.

From the C. Montego to the Burlings, the courſe is ſ. w. twelve or thirteene leagues. Behinde the Burlings is a good roade & anchor ground, under the great Iſland before the Hermitage, then you may anchor in ten fathom, you may come in there from the northwards or from the ſouthwards, it is there broade & wyde, and every where cleane.

From the Burlings to the Rock, or Roxent, the courſe is ſouth and by eaſt, & ſouthſoutheaſt ſixteen leagues, but from the Cape del Fiſiron (behind the Burlings) to the Rock, the coaſt lyeth ſouth & north fifteene or ſixteene leagues The Rock or Roxent is a point of land very eaſy to be knowne, although you be a great wayes off, yet you ſhall alwayes ſee the ſharpe hommock of the Abbey of Syntra.

A great league to the eaſtwards of the poynt of Roxent, or the Rock, lyeth the road of Caſcalis, where men may lye land-lockt for a northweſt, north, & northeaſt winde, in 12 or 13 fathom, ſo deep or ſhoale as they will. A great league to the eaſtward of Caſcalis, lyeth the poynt of S. Julian, or S. Gillians, where upon ſtandeth a ſtrong caſtle, that is the north poynt of the River of Liſbone, the norther channell of the River goeth in within a bowles caſt alongſt by it.

For to ſayle into the norther channell, you muſt run in, alongſt within the length off a maſt alongſt by the foreſayd point, but comming before the caſtle of S. Gillians, you muſt edge ſomewhat over towards the Carrick deepe, for to avoyd ſome fouwle ground and rocks, which lye on the eaſt ſide of the Caſtle. Being paſt that a little, you may luffe up againe towardes the norther ſhoare and ſayle alongſt by it to Reſtiers, & ſoo forth even to Liſbone, men doe commonly anchor before the Village off Bolyn in twelve or thirteen fathom. Men muſt take heed not to come into this channell with calme weather, and with an ebbe, which falleth very ſtrong upon the norther Cachops: this channell of S. Gillians lyeth in eaſt and by ſouth; being within, you muſt ſayle up e. n. e. and n. e. & by eaſt, and when you come againſt the Abbey at Reſtier, then you muſt edge ſomewhat over towards the ſouth-land, els you muſt keepe the north land alongſt.

For to ſayle into the Carrick deep, you ſhal bring Caſcalis, over the weſt-poynt of Roxent, & keepe it ſo, untill that the little Tower (which you ſhall ſee ſtand above the Abbey at Reſtiers come over the white Abbey which ſtandeth the fartheſt from Reſtier, to wit, over S. Katherines Abbey or Cloyſter, goe then north e. & n. e. & by n. in, keeping theſe marcks ſtanding thus, untill that you come within the poynt off S. Gillies, and then goe in alongſt by the north-land to Reſtiers within the Caſtle, and anchor there where you thinke it beſt. Upon theſe markes you may ſayle in and out at the Carrick deepe If you come from the weſtwardes and will goe in to the Carrick deepe, then bring Caſcalis over the weſt-end of Roxent, and ſayle ſo about the norther Cachops, untill that the Town off Liſbone come within two ſhips lengths neere to the ſouthſide of the River, & then further in northeaſt and by north, when as then you ſhall ſee the ſand-bay within the poynt of S. Gillians, then are you in the right fareway.

But if it ſhould happen, that you could not ſee the towne, or the little Tower, then keep the ſand-bay (which lyeth within S. Gillians poynt north e. land by north from you and ſayle ſoo n. e. & n. e. & by north in, and take the ſounding of the norther Cachops in eight or nine fathom: when you begin to come againſt S. Gillians poynt, ſayle then indifferent cloſe along by the north-land, as is before ſayd.

He that will turne out or into the Carrick deepe, muſt bring the foreſayd little tower that ſtandeth within the land, a ſhipps length to the ſouthwards, & a ſhippes length to the northwardes off the foreſayd Abbey or Cloyſter of S. Katherines, and then caſt about every time, and ſoo turne too and againe out and in.

Alſoo come not with calmes in this channell, (neither bound inwards nor outwards) with an ebbe, for it falleth very ſtrong over the eaſt end of the Cachops.

If you will run out at the Carrick deepe, you muſt looke out for the foreſayd little Tower: when it commeth out from under that high land, bring it then a little to the weſtwardes of the ſecond white Abbey or Cloyſter, and goe a way ſouthweſt and by ſouth, and then the little tower ſhall come to the Cloyſter.

But if you muſt turne out too and again, then you muſt be very carefull of your tydes, for the ſtreames fall ſtrong over the Cachops, ſo that it is very dangerous with calme to come in or out at theſe channels, but eſpecially in ſayling out with an ebbe, for it falleth thwart over the Cachops.

From Roxent to S. Uves poynt, the courſe is ſoutheaſt & by ſ. 10 leagues, that is alſo a poynt eaſy to be known, by a high round hill which lyeth on it, alſo men ſhall ſee the top of the caſtle of Siſembre opon a flat hill like a great top or ridge of a countrey houſe.

S. Uves poynt is called Cape de Pitcher, & by the Dutchmen Cape de Spichel, a little to the ſouthwards about the poynt, is a rent or clift in the land, before it is good riding in 9 and 10 fathom. Before Siſember men may alſo anchor in 15 or 16 fathom.

Of the Tydes and courſes and Streames.

On theſe Coaſtes, as on the former, a ſouthweſt & northeaſt moone maketh high water.

A ſouthweſt and northeaſt moone maketh full ſea at the foreſayd places, on the ſea-coaſt, & within the havens a poynt later.

A northeaſt and ſouthweſt Moon maketh on theſe coaſts full ſea, like as on all the coaſtes lying on the great ſea, there goe alſo no ſtreames alongſt the land, becauſe (through the ſwelling off the Ocean ſea) the flood commeth right on againſt the coaſtes, and falleth right in and out at the Havens.

Courſes and Diſtances.

From Cape del Fiſiron, or Nova Liſbona, to the Rock or Roxent ſouth 15 or 16 leagues.
From the Burlings to the Rock, or Roxent, ſouth & by eaſt, and ſ. ſ. e. 16 leagues.
From the Burlings to the Cape S. Vincent ſ. & by eaſt 53 leagues.
From the Burlings to the great Canaries, ſouthſouthweſt 248 leagues.
From the Burlings to the Iſland Palma ſouthweſt & by ſouth 256 leagues.
From Roxent to the Cape Pither, or Saint Uves poynt foutheaſt and by ſouth 10 leagues.
From Cape Pitcher to Cape S. Vincent ſouth ſomewhat eaſterly 29 leagues.
From Roxent to Cape Saint Vincent ſouth and by eaſt 37 leagues.
From Roxent, or the River of Lisbone, to the great Canaries ſouthſouthweſt weſterly 240 leagues.

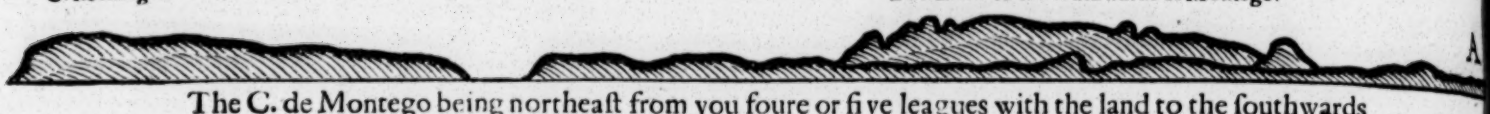
Heights.

The Burlings in 39 degres 40 minut.
Roxenth lyeth in 38 degr. 55 min or as ſome hold in 39 deg.
Cape Pitcher, or S. Uves point lieth in 39 degr. 30 minut.

How theſe Lands doe shew themſelves at Sea.

C. Montego.

The Land to the ſouthwards of Montego.



The C. de Montego being northeaſt from you foure or five leagues with the land to the ſouthwards of it, ſheweth it ſelfe as is pourtrayed in this and the figure following at the letters A A they belong one to the other.



This belongeth to the former, and is the land to the ſouthwards of Montego, until thwart of the Burlings.



Thus ſheweth the Burlings when the northermoſt are eaſt from you a league.

The land Petwixt Penice and Roxent, ſheweth it ſelfe as is pourtrayed in theſe three figures following, when the high land to the ſouthwards of Peniche, being called young Roxent, is eaſt from you, the like letters, as A A and B B belong one to the other.

Young Roxent.





This belongeth to the former figure, and is the land to the northwards of the Rock, or Roxent.

Roxent.



This followeth the former figure, untill Roxent, or the rocke, at the B, one to the other.

Young Roxent northeaſt and by eaſt.

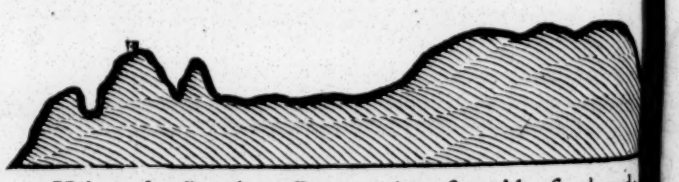
Roxent ſouth and by eaſt.



Thus ſheweth the Rocks, or Roxent, when it is touth and by eaſt, and young Roxent is northeaſt and by eaſt from you, and that you are cloſe by the land.



When the Rock or Roxent is northeaſt from you ſeven leagues, it ariſeth thus.



When the Rock or Roxent is eaſt and by ſouth, and 7 from you 7 leagues, it ſheweth it ſelfe thus.

The eight Demonſtration.

Which

Contayneth the deſcription of Algarve and Andaluzia, from S. Uves to Palos or Clif.

Road under S. Uves poynt.

FIve leagues to the eaſtwardes of Cape Pitcher, or Saint Uves point, lyeth Saint Uves, there lyeth a great bancke before the havens mouth. Beneath the high land upon the water ſide, ſtandeth a white Caſtle, when that is northnortheaſt from you, then are you right before the havens mouth.

For to ſayle in over the Banke before S. Uves.

If you wil ſayle over the bancks into S. Uves comming off from C. Pitcher, or S. Uves poynt, then keepe the weſt poynt off Siſember a ſhips length without the eaſt poynt, and goe then eaſt, and eaſt and by north on, untill that the caſtle of Palmelo which ſtandeth above S. Uves, commeth in a valley over the foreſayd white Caſtle upon the water ſide. Sayle then northnortheaſt right in with them, untill you come within the Caſtle that ſtandeth upon the water-ſide, and then in along within a cables length by the north-land, northeaſt, and by eaſt untill you come before the Towne off Saint Uves, or Setuball. But when the Caſtle of Palmelo commeth under the land, that you cannot ſee the ſame any more, there ſtandeth alſoo a white houſe on the north-ſide of the Caſtle that ſtandeth

ſea. From Cape de Montego to Peniche, or Nova Liſbona, (at the Cabo del Fiſiron, which is the poynt within the Burlings) the courſe is ſouthweſt and by ſouth 12 leagues, there lyet offa rock from the poynt, to the ſouthwards of it is a great bay, where men runne in behind it with barks, & lye landlockt. In that bay lyeth a little town againſt the high land called Artogie, a little to the ſouthwardes of the cape del Fiſiron lyeth a high round hommock, which the Dutchmen call young Roxent.

From the C. Montego to the Burlings, the courſe is ſ. w. twelve or thirteene leagues. Behinde the Burlings is a good roade & anchor ground, under the great Iſland before the Hermitage, then you may anchor in ten fathom, you may come in there from the northwards or from the ſouthwards, it is there broade & wyde, and every where cleane.

From the Burlings to the Rock, or Roxent, the courſe is ſouth and by eaſt, & ſouthſoutheaſt ſixteen leagues, but from the Cape del Fiſiron (behind the Burlings) to the Rock, the coaſt lyeth ſouth & north fifteene or ſixteene leagues The Rock or Roxent is a point of land very eaſy to be knowne, although you be a great wayes off, yet you ſhall alwayes ſee the ſharpe hommock of the Abbey of Syntra.

A great league to the eaſtwards of the poynt of Roxent, or the Rock, lyeth the road of Caſcalis, where men may lye land-lockt for a northweſt, north, & northeaſt winde, in 12 or 13 fathom, ſo deep or ſhoale as they will. A great league to the eaſtward of Caſcalis, lyeth the poynt of S. Julian, or S. Gillians, where upon ſtandeth a ſtrong caſtle, that is the north poynt of the River of Liſbone, the norther channell of the River goeth in within a bowles caſt alongſt by it.

For to ſayle into the norther channell, you muſt run in, alongſt within the length off a maſt alongſt by the foreſayd point, but comming before the caſtle of S. Gillians, you muſt edge ſomewhat over towards the Carrick deepe, for to avoyd ſome fouwle ground and rocks, which lye on the eaſt ſide of the Caſtle. Being paſt that a little, you may luffe up againe towardes the norther ſhoare and ſayle alongſt by it to Reſtiers, & ſoo forth even to Liſbone, men doe commonly anchor before the Village off Bolyn in twelve or thirtheen fathom. Men muſt take heed not to come into this channell with calme weather, and with an ebbe, which falleth very ſtrong upon the norther Cachops: this channell of S. Gillians lyeth in eaſt and by ſouth; being within, you muſt ſayle up e. n. e. and n. e. & by eaſt, and when you come againſt the Abbey at Reſtier, then you muſt edge ſomewhat over towards the ſouth-land, els you muſt keepe the north land alongſt.

For to ſayle into the Carrick deep, you ſhal bring Caſcalis, over the weſt-poynt of Roxent, & keepe it ſo, untill that the little Tower (which you ſhall ſee ſtand above the Abbey at Reſtiers come over the white Abbey which ſtandeth the fartheſt from Reſtier, to wit, over S. Katherines Abbey or Cloyſter, goe then north e. & n. e. & by n. in, keeping theſe marcks ſtanding thus, untill that you come within the poynt off S. Gillies, and then goe in alongſt by the north-land to Reſtiers within the Caſtle, and anchor there where you thinke it beſt. Upon theſe markes you may ſayle in and out at the Carrick deepe If you come from the weſtwardes and will goe in to the Carrick deepe, then bring Caſcalis over the weſt-end of Roxent, and ſayle ſo about the norther Cachops, untill that the Town off Liſbone come within two ſhips lengths neere to the ſouthſide of the River, & then further in northeaſt and by north, when as then you ſhall ſee the ſand-bay within the poynt of S. Gillians, then are you in the right fareway.

But if it ſhould happen, that you could not ſee the towne, or the little Tower, then keep the ſand-bay (which lyeth within S. Gillians poynt north e. land by north from you and ſayle ſoo n. e. & n. e. & by north in, and take the ſounding of the norther Cachops in eight or nine fathom: when you begin to come againſt S. Gillians poynt, ſayle then indifferent cloſe along by the north-land, as is before ſayd.

He that will turne out or into the Carrick deepe, muſt bring the foreſayd little tower that ſtandeth within the land, a ſhipps length to the ſouthwards, & a ſhippes length to the northwardes off the foreſayd Abbey or Cloyſter of S. Katherines, and then caſt about every time, and ſoo turne too and againe out and in.

Alſoo come not with calmes in this channell, (neither bound inwards nor outwards) with an ebbe, for it falleth very ſtrong over the eaſt end of the Cachops.

If you will run out at the Carrick deepe, you muſt looke out for the foreſayd little Tower: when it commeth out from under that high land, bring it then a little to the weſtwardes of the ſecond white Abbey or Cloyſter, and goe a way ſouthweſt and by ſouth, and then the little tower ſhall come to the Cloyſter.

But if you muſt turne out too and again, then you muſt be very carefull of your tydes, for the ſtreames fall ſtrong over the Cachops, ſo that it is very dangerous with calme to come in or out at theſe channels, but eſpecially in ſayling out with an ebbe, for it falleth thwart over the Cachops.

From Roxent to S. Uves poynt, the courſe is ſoutheaſt & by ſ. 10 leagues, that is alſo a poynt eaſy to be known, by a high round hill which lyeth on it, alſo men ſhall ſee the top of the caſtle of Siſembre opon a flat hill like a great top or ridge of a countrey houſe.

S. Uves poynt is called Cape de Pitcher, & by the Dutchmen Cape de Spichel, a little to the ſouthwards about the poynt, is a rent or clift in the land, before it is good riding in 9 and 10 fathom. Before Siſember men may alſo anchor in 15 or 16 fathom.

Of the Tydes and courſes and Streames.

On theſe Coaſtes, as on the former, a ſouthweſt & northeaſt moone maketh high water.

A ſouthweſt and northeaſt moone maketh full ſea at the foreſayd places, on the ſea-coaſt, & within the havens a poynt later.

A northeaſt and ſouthweſt Moon maketh on theſe coaſts full ſea, like as on all the coaſtes lying on the great ſea, there goe alſo no ſtreames alongſt the land, becauſe (through the ſwelling off the Ocean ſea) the flood commeth right on againſt the coaſtes, and falleth right in and out at the Havens.

Courſes and Diſtances.

From Cape del Fiſiron, or Nova Liſbona, to the Rock or Roxent ſouth 15 or 16 leagues.
From the Burlings to the Rock, or Roxent, ſouth & by eaſt, and ſ. ſ. e. 16 leagues.
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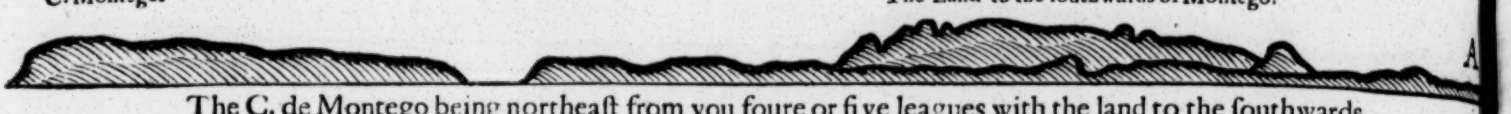
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Roxenth lyeth in 38 degr. 55 min or as ſome hold in 39 deg.
Cape Pitcher, or S. Uves point lieth in 39 degr. 30 minut.

How theſe Lands doe shew themſelves at Sea.

C. Montego.

The Land to the ſouthwards of Montego.



The C. de Montego being northeaſt from you foure or five leagues with the land to the ſouthwards of it, ſheweth it ſelfe as is pourtrayed in this and the figure following at the letters A A they belong one to the other.

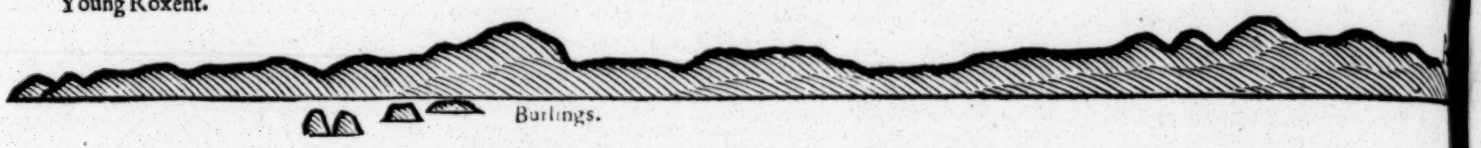


This belongeth to the former, and is the land to the ſouthwards of Montego, until thwart of the Burlings.

Thus ſheweth the Burlings when the northermoſt are eaſt from you a league.

The land Petwixt Penice and Roxent, ſheweth it ſelfe as is pourtrayed in theſe three figures following, when the high land to the ſouthwards of Peniche, being called young Roxent, is eaſt from you, the like letters, as A A and B B belong one to the other.

Young Roxent.





This belongeth to the former figure, and is the land to the northwards of the Rock, or Roxent.

Roxent.



This followeth the former figure, untill Roxent, or the rocke, at the B, one to the other.

Young Roxent northeaſt and by eaſt.

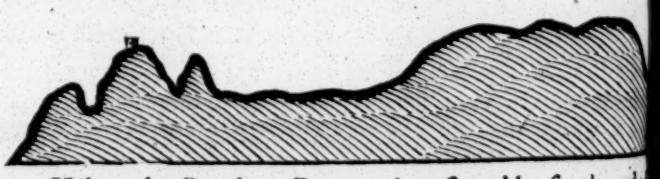
Roxent ſouth and by eaſt.



Thus ſheweth the Rocks, or Roxent, when it is ſouth and by eaſt, and young Roxent is northeaſt and by eaſt from you, and that you are cloſe by the land.



When the Rock or Roxent is northeaſt from you ſeven leagues, it ariſeth thus.



When the Rock or Roxent is eaſt and by ſouth, and from you 7 leagues, it ſheweth it ſelfe thus.

The eight Demonſtration.

Which

Contayneth the deſcription of Algarve and Andaluzia, from S. Uves to Palos or Clif.

Road under S. Uves poynt.

FIve leagues to the eaſtwardes of Cape Pitcher, or Saint Uves point, lyeth Saint Uves, there lyeth a great bancke before the havens mouth. Beneath the high land upon the water ſide, ſtandeth a white Caſtle, when that is northnortheaſt from you, then are you right before the havens mouth.

For to ſayle in over the Banke before S. Uves.

If you wil ſayle over the bancks into S. Uves comming off from C. Pitcher, or S. Uves poynt, then keepe the weſt poynt off Siſember a ſhips length without the eaſt poynt, and goe then eaſt, and eaſt and by north on, untill that the caſtle of Palmelo which ſtandeth above S. Uves, commeth in a valley over the foreſayd white Caſtle upon the water ſide. Sayle then northnortheaſt right in with them, untill you come within the Caſtle that ſtandeth upon the water-ſide, and then in along within a cables length by the north-land, northeaſt, and by eaſt untill you come before the Towne off Saint Uves, or Setuball. But when the Caſtle of Palmelo commeth under the land, that you cannot ſee the ſame any more, there ſtandeth alſoo a white houſe on the north-ſide of the Caſtle that ſtandeth

Setubal
Slot van Palmello
Witt huys
't Witte Slot
Lizembre
Soutlant
Fort
Blauwe berg
Salinas
Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng en Fra. mylen 20 in een graet
De Cust van
ANDALVZ
en Algarve, van Capo de Spichel tot aen
't Amsterdam,
By Iacob Theunisz. boeck-verkooper op
inde Loots man.
REINO
ALGARE
Silvis
Villa nova
Vyge bergen
Lagos
Vyge bergen
C. d. S. Vincente

A N D A L V Z I A O

Mogner

Palos

Guelva

Wibes

Odiel

Salinas

S. Miguel

Jepe

Faron

Ayamonte

Porto S. Maria

Castro marin

Tavila

Faraon

C. de S. Maria

deth on the water ſide, keepe that then ſoo ſtanding, and run in right with them, untill you come within the white Caſtle, and goe then in (as before is ſayd) alongſt by the north-land, untill you come before the Towne of Saint Uves, and anchor by the ſame Towne, before the Fiſher village, in ſix or ſeven fathom. Upon the bancke is at halfe flood three fathom & a halfe water, when you ſayle in over it, you ſhall finde at leaſt 7 divers ſhoals. There goeth in alſo a channell alongſt by the ſouth-land, but that is onely for barkes: betwixt the ſouther channell and the right deep lye the banckes at ſome places ſo ſhoale, that they lye allmoſt above water.

For to finde the deepeſt water in ſayling out over the banck off Saint Uves, with ſhippes that draw much water, doe thus: when you ſayle out from the white Caſtle, then bring the foreſayd white houſe over the north ſide of the Caſtle, that ſtandeth on the water ſide, ſo that you may ſee directly through betwixt them, and keepe them ſo ſtanding, untill Saint Uves point begin to come without the eaſt point of Siſember, then bring the white houſe to the ſouth ſide of the Caſtle, and run ſo out, you ſhall have there the deepeſt water. But when you can ſee that Caſtle of Polmelo, that is a direct longſt mark for tu run over the bancke: And then that white Caſtle muſt bee from you n. northeaſt northerly.

It is from Saint Uves point to C. de Saint Vincent ſouth ſomewhat eaſterly 29 leagues, betwixt both are no knowne havens. Salines a little river lying halfe wayes, is alſo unknown.

From S. Uves to Cape S. Vincent, the coaſt lyeth moſt ſouth and by weſt about 32 leagues, betwixt both lye ſome high ſteep hils, which men doe call the Salines, which are very good marks for to know this coaſt by, but above all ſerve for the knowledge of this coaſt of Algarve, or of the Cape de Saint Vincent, the Vygebergen, or Mount Chigo, which lye within Lagos & may be ſeen farre off at ſea. A halfe league to the northwardes of C. S. Vincent lyeth a high cliffe in the land, that is ſomewhat whitiſh, & higher then the other land; when you ſee that, then you are by the Cape de S. Vincent. Upon the poynt of the Cape ſtandeth a broken Abbey or Cloyſter, and cloſe by the poynt lyeth a high rock, being called by the Dutch ſaylers Monnnick ſtrand.

A little abouth the point of the Cape S. Vincent men may anchor in a ſand-bay, for a n. & n. w. wind in twenty fathom.

Abouth the ſecond poynt, to the eaſtwardes off the Cape, is another Sand bay, there is a good road for a northweſt & north winde in 14 or 15 fathom. From the Cape de S. Vincent to Cape Saint Maries, or Faro, it is eaſt or a little more ſoutherly ninteene or twenty leagues: betwixt them both lye Lagos, or Laves, and Villa Nova. From Cape S. Vincent to Lagos, it is eaſt and by north ſix leagues, there is a tyde-haven through betwixt the rockes, behind a ſtrand of chindle, which falleth dry at low water, men may alſoo ride there for a northweſt, weſtnorthweſt, and north wind, in ten or twelve fathom.

Villa Nova lyeth about foure leagues to the eaſtwards of Lagos; betwixt both, 3 leagues from Lagos, and one from Villa Nova, lyeth a ſuncken rock, where off men muſt take heed. Villa Nova, is a good haven, it lyeth in north, and north and by weſt, at halfe flood you ſhall have there two fathom water, within in the haven on the eaſt ſide lyeth a little Iſland or rock, and upon it ſtandeth a Tower or little houſe, alſo there ſtands upon the land a great maſt with a barrel upon the top of it: when the little Tower, or little houſe, & the maſt come one in the other, then you muſt ſayle right in with them into the haven, alongſt by the eaſt-land untill you be paſt the little Tower, the weſt ſide is flat and ſhoale, when as you come by the maſt, then you muſt goe up to the weſtwardes before the Towne of Villa Nova, there you may anchor in foure or five fathom.

From Villa Nova to Faro, or cape de S. Maria, it is abouth 9 leagues. Upon the ſtrand ſtandeth a fire-towet and from the poynt ſhooteth of a riffe which men muſt avoyd; into the haven off Faro men muſt goe in from the eaſtwards, it lyeth weſt, and weſtnorthweſt in, and they muſt leave the tower on the larboard ſide, and run in two or three fathom: being within, they may anchor over againſt the Town of Faro under the Iſland in three fathom, it is upon the barre at halfe flood 2 fathom deepe.

The Cape S. Maries ſheweth it ſelfe at ſea (when you firſt ſee it) in one round hommock, which is a good mark for to know the whole coaſt of the Condado by.

Five leagues northeaſt and by eaſt from Cape S. Maria or Faro lyeth Tavila, that is a crooked ſhoaly Barre, which allmoſt every yeare doth ſhift, and is not to truſt to for to ſayle into it, unleſſe it were firſt beakond, or ſet with buyes, it is at halfe flood ſcarce two fathom deepe, men lye there a little within the ſand-hills in foure fathom.

From Tavilla to Ayemont, the courſe is eaſtnortheaſt 5 leagues.

Ayemont is a deepe Barre, and one of the beſt havens in the whole Condaet, it lyeth in northweſt by the eaſt-land, at halfe flood it is three fathom deepe, there lyeth ſome ſhoals before the havens, the markes there of are theſe: There ſtandeth a tree upon the eaſt ſide, of the haven or rivers-mouth, when Ayemonte commeth right againſt over the tree, then are you to the eaſtwards off the ſhoals or ſands, which lye before the haven, then you muſt goe towards the foot ſtrand, and leade it in alongſt by it northweſt, and northweſt and by weſt, when you are within, you muſt goe up to the northwards before the Town, or if you will goe before Porte Maria, the northweſt courſe will bring you there; within, it is wide and broad, and ſixe or ſeven fathom deepe.

There goeth in alſoo a haven by the weſt-land, where men come in, right out of the ſea, but that by the e. land is the beſt.

From Ayemont to Leepe, or S. Michaels, the courſe is eaſt and by north ſeven leagues. Leepe hath un certain bars which oftentimes ſhift, where men may not truſt themſelves tot ſayle into without a Pilot, the Barre that goeth into the eaſtwardes of the great Iſland, is held to be the beſt; from thence they muſt goe up to the weſtwardes towards Taron, & the River, & ſo come to Leepe, and there they take their lading in before the deepe. Leepe.

The Barre of S. Michaels was wont to run thwart over into ſea and to be at halfe ſtood three fathom deepe, & before S. Michaels five fathom: from thence men may com through within over the ſhoals at high water into the River at Leepe. Alſo men were wont to come in by Taron; but for certainty it is needful to take in a Pilot for theſe Barres. Saint Michaels. Taron.

From S. Michaels to Palos, or Saltees, the courſe is eaſt & eaſt and by ſouth 7 leagues, here men ſayle into the great Condaet, this haven goeth in at the weſt end of the Rooduyn, there ſtandeth a great broad tree to the weſtwards off that white cliffe, that you muſt keepe over a red ſand-hill, like as if it were red earth: this ſand hil goeth ſloping downe; Runne in upon theſe markes unto the ſtrand, about north & north and by weſt, then ſhall the tower Odier which ſtands above Wolves, come over the eaſtſide of the havens mouth, keepe them ſo ſtanding, and ſayle alongſt by the ſtrand, without 2 cables lengths untill you come about the point, and then you run up north to Palos, or northweſt to Wolves, and anchor there in ſixe or ſeven fathom. Palos. Saltees. Wolves.

It is deepe there within, ſixe, ſeven, and alſo three & foure fathom in ſayling up according as men doe ſayle farre up, or els not, this Barr is upon the ſhoaleſt at halfe flood three fathom and a halfe, but within it is five fathom deep.

There commeth alſo a channell running out of the ſea betwixt the ſands, then Wolves commeth to the eaſt-ſide of the havens mouth, and men ſayle n. n. w. in; when

they are within the havens mouth, then they muſt doe as before is ſayd. This channel is three fathom deepe.

For knowledge of the land hereabouts you ſhall underſtand that at the weſt end of the Roduyn, lyeth a white ſteepe land, cliffy, being reddiſh erath or chalke: he that falleth there with, may tinck that he is by the havens mouth of Saltees, upon it ſtand ſome little buſhes of trees, els the land is all without trees, reddiſh ſand, terefore called Roduyn, or Red ſandhill.

Of the Tydes and courſes and Streames.

A ſouthweſt and northeaſt Moone Maketh at all theſe places (on the ſea ſide) high water, and within in the havens a poynt or 2 later, according as they lye farre with in the land.

As on all the coaſtes of Portugall, even ſo here alſo on theſe coaſts a ſouthweſt & northeaſt Moone maketh the higheſt water.

A. ſ. w & n. e. Moon maketh on theſe coaſts full ſea, within the havens a pont or two later, according as they lye farre within the land.

An e. & ſ. w. Moone maketh high water at the C. S. Vincent, & at the Cape S. Maria, alſo on the coaſts lying betwixt them both.

But to the eaſtwardes on the Condaet maketh full ſea a ſ. w. and by ſ. & ſ. ſ. w. Moone.

Courſes ad Diſtances.

From C. Pitcher to the C. S. Vincent ſomewhat eaſterly 29 leagues.
From the river of Lisbona to the Iſle de Salvages ſouthweſt and by ſouth 213 leagues.
From the River of Liſbona to Porto Santo ſouthweſt 160 leagues.
From the River of Liſbona to the Iſle Madera ſouth w. 176 leagues.
From the River of Liſbona to the Iſland Tercera weſt 263 leagues.
From de C. S. Vincent to Lagos, or Laves eaſt & by north 6 leagues.
From Lagos to Villa Nova e. 3 leagues.
From Villa Nova to C. Maria, or Faro, eaſt & by ſouth 10 leagues.
From C. S. Maries, or Faro, to Tavilo, n. e. and by e. 5 leagues.
From Tavila to Ayemonte e. n. e 5 leagues.
From C. S. Vincent to C. S. Maria eaſt 19 leagues.
From C. S. Maries to Leepe, or S. Micheals e. n. eaſt 17 leagues.
From C. S. Maries to Saltees e. n. e. 24 leagues.
From C. S. Vincent to the C. Cantin ſ. 90 leagues.
From C. Vincent to C. de Geer ſouth weſterly at leaſt 138 leagues.
From C. S. Vincent to the Iſland Lanzerotte ſ. ſ. weſt 180 leagues.
From C. S. Vincent to the great Canaries, ſouthweſt and by ſouth 210 leagues.
From C. S. Vincent to the Iſle de Palma ſouthweſt 124 leagues.
From C. S. Vincent to Porto Santo ſouthweſt and by weſt 144 leagues.
And to Madero ſ. w. & by w. 157 leagues,
From C. S. Vincent to the Iſle de S. Maria w. 236 leagues.
From C. S. Maria to Sipiona e. 29 leagues.
From C. S. Maria to the Straite e. ſouth e. and ſoutheaſt and by eaſt 42 leagues.
From C. S. Maria to C. Cantin ſ. & by w. 90 leagues.
From C. S. Maria to the great Canaries ſouthweſt and ſouthweſt and by ſouth 220 leagues.
From C. S. Maria, or Faro, to the Iſle de Madera ſ. w. and by weſt 174 leagues.

Heights.

The Cape de S. Vincent and S. Maria lye in 37 degrees.

How theſe Lands doe ſhew themſelves at Sea.



Roxent. Caſcalis.

The land to the eaſtwards or to the ſouthwards of Roxent towards Reſtiers, ſheweth it ſelfe as ſtandeth pourtrayed in this and the figure following.



S. Gillis.

This belongeth to the former.

Cape Pitcher.



Thus ſheweth the coaſt betwixt the River of Lisbona, and S. Uves poynt, called C. Pitcher.

Thus ſheweth S. Uves poynt when you come from the northwards.



Thus ſheweth S. Uves poynt when it lyeth eaſt and by north 6 leagues from you.



Thus ſheweth S. Uves poynt when it is northeaſt and by north foure or five leagues from you.



In this forme ariſeth S. Uves poynt, when it is nortnortheaſt five or ſixe leagues from you.

Blew

Malaga

C. de Malaga

Fangetola

Marbel la

Estepona

Gibralter

Out Gibralter Bay

Soutlant

Puerte Real

Puerte de Suaco

Isola de Cadiz

Colommen van Hercules

Cales

I. de S. Pedro

C. Trafalgar

Puerto S. Maria

S. Catrine capel

Horcado

Rotta

S Lucar de Barrameda

Diamant

Les puercos

Punta d S Sebastiano

Castel

Roodhuys

Sibipus

Soutlant

Riviere van Sevilien

H I S P A N I A

A N D A L V Z I A

1 2 3 4 5 6 7 8

Duytsche mylen 15 in een graet

1 2 3 4 5 6 7 8 9 10

Spaensche mylen 17 ½ in een graet

1 2 3 4 5 6 7 8 9 10 11

Eng: en Fra. mylen 20 in een graet

Cust van

HISPANGIEN

Vande Rivier van Sivilien tot Malaga; Ende van Barbarien, van Out Mamora tot Penon de Velez.

't Amsterdam.

By Iacob Theunisz. Boeckverkooper op't water inde Lootsman.

Penon de Velez

Chessa

Netgalli

Targa

B A R

Riffi

C. Tetuan

Tetuan

Seuta

Schemmikel berg

Alcasar Segeer

C. Malabata

Out Casteel

Tanger

C. Spartel

Vleuvelken

De Straet van Gibralter

B A R I A

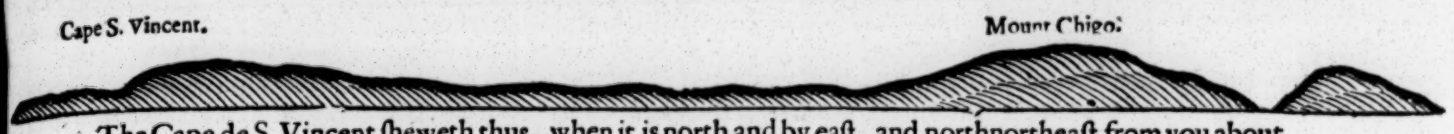
Arzila

Larache

Out Mamora



Thus ſheweth the land about the C. de S. Vincent, when you come from the northwards, and ſayle alongſt by it.



The Cape de S. Vincent ſheweth thus, when it is north and by eaſt, and northnortheaſt from you about 8 leagues. The Vigebergh or Mount Chigo lyeth then northeaſt and by north from you, in forme as is here pourtrayed.



When the Vigebergen, or Mount Chigo is northnortheaſt and northeaſt and by north from you 12 or 13 leagues, it ſheweth thus, in one long hill, going downe flat at both ends, with another peece of land, much lower to the eaſtwards of it.



Thus ſheweth the Cape S. Vincent, when it lyeth northweſt ſeven leagues from you.



Thus ſheweth the Vigebergh, or Mount Chigo, when it is with cleare water northnorthweſt from you 11 or 12 leagues.



Thus ſheweth it ſelfe the land about Lagos and Villa Nova, when you are thwart from Villa Nova, not farre from land, a little to the weſtwards of Lagos, lyeth a white poynt, where by men may eaſily know Lagos. The Cape S. Maria ſheweth it ſelfe then, as in the figure following.



Thus followeth the former figure from Albofero to the Cape S. Maria.



Thus ſheweth Cape S. Maria when it is northeaſt and by eaſt from you nine or ten leagues.



When the Cape S. Maria is northeaſt and by north from you; it ſheweth it ſelfe thus.

The ninth Demonſtration,

In Which

Are ſhewed the Sea-Coaſtes of Andaluſia from Palos untill you are paſt the Straights by Madril, and the Coaſt of Barbarie lying over againſt it, and alſo the Cape Spartell on the Coaſt of Barbarie to the Old Mamora.

FRom Saltees to the River of S. Lucas, the courſe is ſoutheaſt & ſoutheaſt and by eaſt betwixt 8 & 9 leagues.

If you will ſayle into the river of S. Lucas, then ſayle alongſt the red ſand-hils, ſo long untill that you get the towne of S. Lucas in ſight about e. ſ. e. from you, there lyeth a white cloyſter to the eaſtwards of the town, againſt the high land, and there ſtandeth a great tree

upon the high land, bring the tree even to the northſide or the Cloyſter, ſo that you may allmoſt ſee through betwixt them but not over the Cloyſter, keepe them ſo ſtanding, and ſayle right in with them, and ſo you ſhal not come to neer the rocks to take hurt of them, & you ſhal have upon the ſhoaleſt at low water & neepe tydes, 3 fathom, & at high water 22 foot, or ſcarce 4 fathom. When the caſtle of Chipiona and the church beginne to come one in the other, then you come to the firſt rocks or ſhoals, when the church and caſtle are right one over the other, then they ſtand ſouthſouthweſt from you, then you are upon the ſhoaleſt of all, but when the caſtle with the church come againe one through the other, then you get againe deeper water, 3 fathom and a halfe, and 4 fathom at low water with a neepe tyde, ſayle in alongſt upon the foreſayd markes of the cloyſter and the tree, but take good heed that you bring not the tree over the Quire, at the ſouth-end of the cloyſter, for you ſhould then come very cloſe to the rockes, rather bring the tree a little to the northwards of the cloyſter, for you can not lightly take hurt of the red ſand-hils, but you may borrow off them upon your lead in 3, and 4 fathom. There ſtands alſo a mill to the eaſtwards of the towne, take heed that you bring not that alſo over the round cloyſter that ſtandeth a little to the eaſtwards beneath at the towne, but keep them a handſpikes length aſunder, and then you ſayl in the beſt deep. But if the foreſayd mill, and that round Cloyſter come one in the other when you ſayle in, then you ſhall (without ſayle) come upon the rocks or ſhoals. When you are within over the ſhoaleſt, ſayl then towards the ſtrand of S. Lucas, untill that you ſee altogether open into the river, for to avoyd the riffe that ſhooteth off from the n. w. poynt of the river, ſayle on alongſt by the ſhoare and anchor before the little Church with the croſſes (which ſtands below in the ſand hills) in 5, 6, or 10, or 12 fathom, ſo neere as you pleaſe. Men may alſo turn out at this ſame channell with indifferent ſhips or barks, but they muſt take good heed, it is not there very broad.

For to ſayle alongſt by Sipiona.

There goeth in alſo a channell by the land of Sipionen or Chipiona, for to find it, you ſhal ſayle in within two cables lengths neer by the foreſayd land, untill that you be within the ſecond ſhoale, then you muſt edge ſomewhat off from the land, untill you come upon the foreſayd marks off the Cloyſter and the great tree, then you muſt run in alongſt upon them, as is before taught. The river of S. Lucas is eaſy to know, by the Rooduyn, or red ſand-hills which lye to the weſtwards of it.

Cales.

From Sipione to Cales Males, the courſe is ſ. e. 9 leag. Cales is knowne by the mountaine off Granade, when that is eaſtnortheaſt and eaſt and by north from you, ſayle then right in with it, and you ſhal not ſayle to fall right before Cales. At the poynt off Sipiona lye many rocks above water, and betwixt the poynt of Sipiona Cales. Foure leagues from Sipiona lyeth Rotta, there ſhooteth off a great ledge off rocks from the poynt.

For to ſayle into the bay off Cales.

Hee that will goe into the bay of Cales, let him run in right with the rockes which lye on the weſt-ſide of the Bay, being called los Puercos, and within to cables lenghts in all alongſt by them in 6 or 7 fathom, untill he come before the town of Cales, and anchor the ſoo deep as he pleaſeth, in 8, 10, 12, or 15 fathom. the faireway lyeth in moſt eaſtſoutheaſt and ſoutheaſt and by eaſt.

Los Puercos.

Diamant.

There lyeth a rock under water, called the Diamant, about n. n. e. and n. e and by north from the Puercos, a great half league. When S. Katharins chappell upon the northland is e. n. e. from you, then are you thwart of that rocke, there is at halfe flood 3 fathom water upon it, the marks off this rock are theſe: When Mary church commeth over the north end of Cales, (that is a Cloyſter which ſtandeth without Cales) there ſtands alſo a houſe upon the hill, where men goe alongſt by, when they goe to Sheres, when that houſe commeth over the chappell which ſtandeth upon the water ſide: to the weſtwards of porte Marie: when theſe markes come together one in the other, then you ſhould ſayle upon the foreſayd rock, there is upon the ſhoaleſt of it at high water, 3 fathom and a halfe water upon it. But ſet the two high hills which are to the ſouthwards of the way of Sheres, that they bee a little aſunder, & that they doe not come one in the other, then you cannot ſayl upon this rock. The Puercos rock lye from the north-poynt off Cales about halfe a league. He that lies before Cales in the road, hath Puntall ſouth from him, or there abouts, according as he lyeth neer to Cales. But to the ſouthwards of Cales lyeth a rock, come not neerer that then in ſeven fathom

Marks of the Diamant.

The Bay of Cales is wyde and broad, men lye there in 5 & 6 fathom, the northweſt wind commeth there open in. If any man therefore would goe further in behind Puntall, let him goe in ſoutheaſt betwixt the poynt of Port Real & Puntall, and run up about the poynt of Puntall, there men lye land-lockt for all windes: there men may lay theyr ſhips dry a ground for to make cleane. He that will goe into the Creek, muſt take a Pilot, and run up into the water of Port Real leaving the little Iſland on the larboard ſide, and then Herods Creeck ſhall open it ſelfe, and there hee muſt ſayle up keeping the middle of the channell, till he come before the Saltheaps.

To ſayl from Cales to the Strait.

For to ſayl from Cales to the Strait, men muſt goe away ſouth, and ſouth and by eaſt to the C. de Trafalgar and then they ſhall run far enough without the bancke or rocks which lye off ſ. eaſt from Cales. From the poynt of S. Sebaſtian to Cape de Trafalgar, which is the n. poynt of the Strait, on the weſt ſide it is ſ. ſ. eaſt, ten leagues. About two leagues to the northwards of the Cape, lyeth Conil, there is a faire ſand-bay, where men may anchor in 12, 13, and 14 fathom clean ground.

Hee that deſireth to ſayle into the Straite of Gibralter comming from Cales, let him goe from the poynt of S. Sebaſtian, which is the weſtermoſt poynt of the Iſland Cales, ſouth & by eaſt, ſouthſoutheaſt, towards the Cape de Trafalgar, untill he be a good wayes without the land for to avoyd the Spaniſh coaſt which is fowle: there lyeth of weſt & by ſouth from the Iſland Tariffe, a banck of ſtones 2 leagues, or two leagues and a halfe into ſea, where upon is eight, nine, or ten foote water, when it bloweth hard, men may ſee it break. The foreſayd poynt of S. Sebaſtians, and the C. de Trafalgar lye ten leagues aſunder.

When you are then ſomewhat without the Cape de Trafalgar, and ſet your courſe ſ. ſ. e, and ſ. e. and by ſouth, then you ſhall fall with the land off the Barbary coaſt, within the Cape de Spartell, about thwart off Tanger, lying in a great bight and ſand-bay. Upon the weſt point of this bay of Tanger, ſtandeth a caſtle ſomewhat high, and yet ſomewhat higher upon the high land, ſtandeth a little watch-tower: but to the eaſtwards of Tanger ſtandeth alſoo an old ruinous watch-tower, whereby Tanger is very eaſy to be knowne. From Tanger to Ape-hill, the coaſt lyeth moſt e. n. e. and eaſt & by north, is the right courſe for to ſayle through the Strait. If you will ſail into the Strait by night, then keepe to the Barbary coaſt, which is very cleane and there you can take no hurt: but the Spaniſh coaſt is fowle, as is before ſayd. They that will ſayle alongſt by the Spaniſh coaſt, they muſt goe cloſe alongſt by the ſhoare, and runne through betwixt the Iſland Tariffe and the foreſayd fowle grounds, cloſe alongſt by the Iſland, or els muſt keepe farre off from the Iſland, for to runne alongſt without the ſhoals; but in the middeſt, neere a like unto both lands it is beſt.

Cape Cabrita.

Three leagues to the eaſtwardes of the Iſland Tariffe lyeth the point off Cabrita, being the weſt point of the great Bay of Gibralter over againſt the hill of Gibralter: a little to the w. wards of it, is a good road for a n. e. wind, in 12, 10 & 8 fathom, not farre from the ſhoare, thwart off a great rock, which lyeth cloſe upon the water ſide, a little to the eaſtwards of the fire-tower; A little to the weſtwards of that fire-tower which ſtandeth upon the foreſayd point, is a fair ſandſtrand, betwixt the two towers there you ſhall lye ſmooth for the weſtern grown ſea.

At Gibralter is a faire Bay almoſt like a haven: if you

will anchor in the bay of Gibralter, then ſaile ſo farre into it, untill that innermoſt point of the hill of Gibraltar, doe ſtand eaſt from you, thereabout it is deepe 5 or 6 fathom, and clean grond: towards the mill it is ſhoal water of 3 fathom. Men lye there in the Bay landlockt for a w. wind, a ſ. winde commeth from the poynt of Gibraltar hill, but a ſouthweſt wind that bloweth there opon in. From thence are brought good wines.

When you will ſet ſaile from the road of Gibraltar with an eaſterly wind, it is good to beare up ſomewhat before the wind towards the weſt ſhoare,& then forth out alongſt by the lee ſhoare, for the eaſterly winds do fall with ſuch whirling & fore-flaughes from over the high land of Gibraltar, that you ſhall be hardly able to get out of the Bay alongſt by the high land. When you come from the eaſtwards, & will ſayle out through the Straits, and that you are ſomewhat neere to the Spaniſh coaſt, then you muſt be very carefull, for that you bring the hill of Gibraltar, againſt the high land of Barbary, and in regard the land to the northwards of Gibraltarhil is low, it ſeemeth (to loock to) to be nothing els, then as ifthere were the opening of the Straites. It hath there tofore happened, that ſome which have ſo miſtaken it, have ſayled into the bay, thinking it to be the opening of the Srait, & ſo have loſt their ſhips there. Therefore it is very needfull that men take great care not to miſtake them ſelves of the hill of Gibraltar, & if men do take need of it, it is eaſy to bee knowne.

Eſtepona lieth 5 leagues to the eaſtwards or to the northwards of Gibraltar, betwixt them both ſtand divers firetowers upon the coaſt, there is clean ground for to anchor. If you will anchor to to eaſtwardes of Gibraltar, by the next tower of Gibraltar, then bring Gibraltar ſouthſouthweſt from you, and anchor in 25 fathom, there is cleane ground & blackſand, but if you will anchor by the ſecond firetower, there is a valley, & there you may fetch water, and anchor in 20 or 22 fathom, there is a valley and there is alſo clean ground, and better lying for to ſet ſail with eaſterly winds, for thoſe that are bound out of the Strait. Before Eſtepona, men may anchor in 14 fathom, that is a place for to lade fruite and wines; 5 or 6 leagues to the eaſtwards of it lieth Marveles, betwixt them both ſtand 5 watch towers upon the coaſt.

From Gibraltar to Marveles the courſe is n. e. and by north diſtant 12 leagues, if your will anchor in Marveles, then you muſt look out for two Packhouſes which ſtand upon the ſtrand & a great ſquare watch-tower cloſe to the eaſtwardes off the foreſayd Pack-houſes: bring the gate of the towne ſo, that you may ſee through betwixt the Packhouſes and the watch tower, and anchor there in nine or ten fathom. Right before Marveles, the ground is not cleane. About a ſhot of a Caſt peece to the weſtwards of the town, men may fetch freſh water.

From Marveles to Fangerola it is 5 leagues eaſtnortheaſt, betwixt them both ſtand alſo 5 watch-towers. Fangerola is a caſtle, and hath a faire ſand-by, there is good anchor ground in 7, or 8 fathom, a flat riſing ground; men may lye there landlockt for a weſtſouthweſt wind. Fangerola.

From Fangerola to C. de Mol, the weſt poynt of Mallaga, the courſe is forth eaſtnortheaſt two great leagues: but from the weſt poynt of Mallaga to the town of Mallaga, the courſe is northeaſt and northeaſt & by eaſt 4 leagues, it is there betwixt then both a faire ſtrand, where men may anchor all alongſt in 10 or 12 fathom. C. de Mol.

Mallaga is knowne by theſe markes: There ſtandeth a Caſtle to the eaſtwards upon the high land,& there come two walles downewards towards the ſea to another Caſtle which lyeth by the water-ſide. Before that ſame Caſtle is now the road, that which was wont to be the right road, is now altogether ſpoyled by caſting of ballaſt. Mallaga.

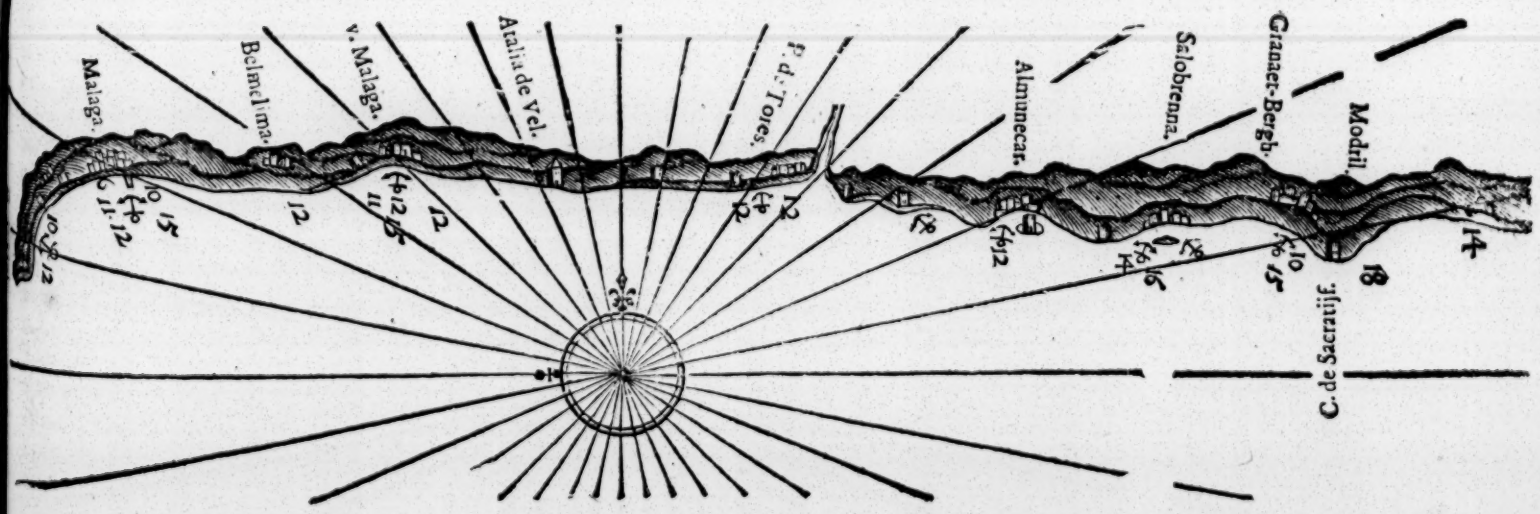
If you will anchor in the road before Mallaga, then anchor in 10, 11, 12, or 14 fathom, thwart off from the head, if that the head come to lye from you north and by eaſt, there is very good ground, the anchors hold there well, alſo men lye there out of danger for the Moores.

Velez Mallaga lyeth from Mallaga eaſt and by north diſtant 7 leagues, betwixt them both men may anchor all alongſt by the ſhoare. About a league to the weſtwards of Velez Mallaga ſtandeth a little Caſtle; before it is good anchoring in 10 or 12 fathom. By the next Tower, to wit, the next to the little caſtle, there is freſh water to be gotten on the land.

The Towne off Velez Mallaga lyeth about a league within the land, but upon the ſtrand ſtandeth a great Packhouſe appearing like a caſtle. Velez Mallaga.

If you will anchor at Velez Mallaga comming from the weſtwards, then you muſt give the weſt poynt a birth; there lyeth off a bancke a good wayes into ſea by the watch-tower which ſtandeth below, to the weſtwards of Velez Mallaga: But is you run alongſt by the ſhoare in tenne, or eleven fathom, without

The Coaſt of Spain from Malaga to Modril.



comming

comming neerer the ſhoare, then you can not take any hurt in the foreſayd banke or riffe. When as the towne of Velez Mallaga commeth a little to the eaſtwards of the foreſayd Packhouſe or tower, which ſtandeth upon the ſtrand, then anchor in 12, 10, or 8 fathom, it is there all cleare & cleane ground.

From Velez Mallaga to Almunecar, the courſe is eaſt, 15 or 16 leagues, betwixt them both it is all cleane Coaſt, men may anchor there under all the poynts which lye betwixt them both.

Two great leagues to the weſtwards of Almunecar lyeth a poynt, whereupon ſtandeth a fire-tower, under is a good road for a weſt wind.

If you will anchor at Almunecar, then anchor to the weſtwards of the rock, where the little chappell ſtandeth upon the twelve fathom, there is good ground, and ſhall lye there landlockt for an eaſt & weſtnorthweſt wind.

Salobrena lyeth from Almunecar foure leagues to the eaſtwards, that is a little Towne with a little Caſtle, and lieth upon a hill a little about the eaſt poynt of Almunecar, & right before Salobrena lieth a little Iſland, he that will anchor there muſt anchor to the weſtwards of it, there he ſhall lye landlockt for a northeaſt wind, and alſo for a weſt wind, then he ſhall have ſuccour of the eaſt poynt of Almunecar. Men may alſo well anchor to the eaſtwards of that little Iſland, but to the weſtwards of it is the beſt road, there lye alſo all the ſhips, they may anchor there in fourteene and fifteene fathom, clean ſoft ground, in ſixteene fathom they ſhall lye ſomewhat too farre out. Men may (if need ſo require) run through betwixt the foreſayd little Iſland, & the maine land, betwixt them both there is about ſixteen or ſeventeen foot water, and the little Iſland is round about clean, ſo that men may run very cloſe alongſt by it without feare.

Two great leagues eaſtwards from Salobrenna in the ſame bight, a half league from the ſea ſide within the land lyeth Modril, which hath two Churches & ſome trees, thereabouts upon the water ſide ſtandeth a ſquare tower.

If you will anchor at Modrill, then anchor before the foreſayd ſquare tower, which ſtandeth upon the water ſide in twelve or thirteene fatom, ſo that you may ſee the little Tower upon the eaſt poynt even without the other poynt, there is cleane ground, men lye there landlockt for an eaſtwind, but a ſoutheaſt & a ſouthwind make there (like as at all places on theſe coaſts) a lee ſhoare. A little to the eaſtwards of Modril lyeth the poynt, called Cape de Sacraſtijf.

The Coaſtes of Barbary.

For to ſayle out of the Bay of Gibralter to Tetuan, then run over ſouth and by eaſt, about cloſe by the poynt of Seuta, eſpecially with a weſterly winde, you ſhould otherwiſe be carried away ſo with the currenth, which then commonly runs to the eaſtwards, that you ſhould fall too farre to the Leewards. Comming then about by the poynt of Seuta, you ſhall ſee out a head a black point called cape Porkes, lying ſouth from the poynt of Seuta. When men lye in the Bay of Gibraltar, they may ſee the foreſayd cape Porkes alongſt over Seuta: which is a poynt very eaſy to be known, ſail towards that point, and with a weſt-winde luffe up ſo neere as you can. When you come about that poynt, then you ſhall begin to ſee Tetuan, which lieth up againſt the high land, a great league within the land: run then ſo far to the ſouthwards, untill that the eaſt end of the towne come right over a little round hommock, which is upon the high land within. In the middeſt of the towne ſtandeth a black tower, and in the innermoſt land of all within, lye three little hills, which doe (as it were) looke over the outermoſt inner land, bring the three little hills over the foreſayd black tower, and anchor then ſo farre from the ſhoare that the firſt little hill of the high land to the ſouthwards of Seuta, towards cape Porques, come a little without Cape Porques, there it ſhall bee ſixteen fathom deep, & good ſoft ground. If you anchor othertwiſe then upon theſe foreſayd marks, you ſhal have bad, ſtony and ſharpe ground. It hath happened that ſome ſhips have anchored there, but their anchors fall ſo into the rocks, that they could not weigh them again, but muſt hew of their cables, and leave their anchors behinde them. Therefore if you come off from the point of Cape Porques, then bee carefull that you bring the foreſayd firſt little hommock (which lyeth a ſtearn of you in the bight of Seuta to the ſouthwards of Seuta) a little without the Cape Porques, and ſo keep ſayling to the ſouthward, and keep heaving of the lead continually without ceaſing untill that you get the ſoft ground, ſo ſoone as you ſhall feele it, let then preſently your anchor fal, for the place where the ſoft ground is, is no two cables length in compaſſe great.

C. Porques.

Marks of the Roade before Tetuan.

Tetuan lyeth from Seuta about ſixe leagues, and three or foure leagues to the ſouthwards of it lyeth a point, called Cape Tetuan, where upon ſtandeth a tower. He that hath never been at Tetuan, might eaſily be miſtaken by that poynt, taking it to be cape de Porques, the ſooner becauſe that ſome ſay that Tetuan at leaſt nine leagues to the ſouthwards of Tetuan. It hath happened that ſhips have ſayled unto this poynt, and have ſo runne paſt Tetuan, therefore it is beſt that men goe not too farre from the ſhoare either by night or by day for to get the cape Porques certainly in ſight.

The Bay of Tetuan betwixt the Cape Porques and Cape Tetuan, is a ſand bay altogether of ſand-ſtrand with low hommocks here and there upon the ſea-ſide, which a farre of ſeeme as if they were ſhipps, but the ground thereabouts is altogether foule, except ſuch a place as before is ſayd. Betwixt the Cape Porques and Seuta it is alſo a faire ſandſtrand; but thwart of it is all good ground.

The Coaſt of Barbarie in the Straite of Gibralter, lyeth from Seuta to Cape de Spartell weſtand by ſouth, and weſtſouthweſt eight or nine leagues. But the Cape de Spartell, and Cape de Trafalgar on the Spaniſh ſide, lye north and by weſt, and by ſouth and by eaſt eight leagues aſunder.

From Cape de Spartell to Arzila, the coaſt lyeth ſouth and by weſt ſeven leagues, betwixt them both alongſt the ſea-ſide, it is all lowe land, with ſome poynts and high land within, with a white ſandy-hilly ſtrand. A little to the ſouthwards of the poynt of Cape de Spartell, men may anchor for eaſterly windes in twelve or thirteene fathom, cleane ſand-ground, but ſo ſoone as the winde doe ſhift to the weſt they muſt bee ready to get under ſaile, leſt they be inbayed upon a lee ſhoare.

About a league to the ſouthwards of the Cape lyeth a little hommock upon the low land, by the water ſide, which ſheweth (in ſayling by) like a broken ſchonce or caſtle.

Arzyla is a little walled town, lying upon the water ſide, and hath a little bard haven, which men doe ſayle into at two places through a row of Rockes, which lyeth before it, the northermoſt channell is the deepeſt, but both of them are not fit but for ſmall ſhippes Being come within the rocks, men doe anchor betwixt the town and the rockes.

From Arzyla to Alarache, the coaſt lyeth alſo ſouth and by weſt eight leagues, it is altogether a cleane coaſt with ſome rocks on the ſhoare, the land betwixt them both is ſomewhat higher then betwixt Arzyla and the Cape with high land within. About an Engliſh mile to the ſouthwardes of Arzyla ſtandeth a tower, and ſomewhat further to the ſouthwards, upon the high land ſtand ſome little houſes, but men cannot well ſee them, except thez ſayle cloſe alongſt by the coaſt. Betwixt Arzyla and Alarache, but ſomwhat neerer Alarache then Arzyla, lyeth on the ſea ſide a high white cliffe, which is very eaſy to be known, betwixt that cliffe and Alarache ſtandeth upon the high land a very high tree, with ſome other trees by it, when men come from the northwards alongſt by the ſhoare, that great tree ſeemeth too bee a tower, yet ſomewhat to the ſouthwards ſtandeth an other great tree, but not ſo great as the other; when men begin to come neere to Alarache,

or els by the southermost great tree, then the foresayd greatest tree doth hide it selfe behinde the land. These are all very good marks for to know this coast by, betwixt these two places.

Alarache lyeth with a great Castle upon the south point of a river, which is very shoale and croocked, the north point is a low point going flat off, and within it, on the n. side of the river standeth also some buildings. Before the river lyeth a barre of quicksand, which lyeth off from the north point, where ships may goe in over with a spring tyde, through a Creeke, els it is but for Barkes & Friggars: men may anchor before it in the Roade in 16, 17, and 18 fathom.

Alarache is under the command of the King of Spaine, & is little or nothing used either by English or Dutchmen.

He that saileth alongst this coast, must not come very close to the shoare, unlesse it were with a hard Levand, or easterly winde, with calme weater there goeth sometimes a very great grown sea out of the west northwest, so that somtimes men can hardly get off from the shoare.

From Alarache to Old Mamora the coast lieth south and by west and southsouthwest betwixt seven or eight leagues, it is low land with sand-hills with few places that are easy to bee knowne, all alongst even to Mamora.

He that commeth out of the sea, and falleth with the land, here on this coast, shall perceive little knowledge of the land, unlesse hee fall with some of the inhaited places. This Old Mamora was wont also to be a haven, but is now altogether cast to of the sea.

Of the Tydes & Courses of the Streames.

Before the Condaet on the coast a southsouthwest and northnortheast moon maketh high water.

Before Palos Moguer and Wolves maketh full sea a s. and north moon.

Before the river of S. Lucas, and at Cales before the bay maketh full sea a southwest and by south and northeast and by north moon.

At Cales in the Bay maketh high water a southsouthwest moone.

The ebb falleth without the Puercos to the southwardes towardes the Strait, and the flood towards the land to the northwards: but for the most part, the flood falleth thwart in to the land, about the havens.

In the narrow of the Strait maketh high water a southwest and by south moon. The current runneth more to the westwardes then to the eastwards; when it is faire weather there goeth commonly 4 houres flood to the eastwards, and eight hours ebb to the westwards, but the most part of the time according as the winde is, and at sometimes the current runneth so strong, that it rippleth as if there where shoals.

Courses and Distances.

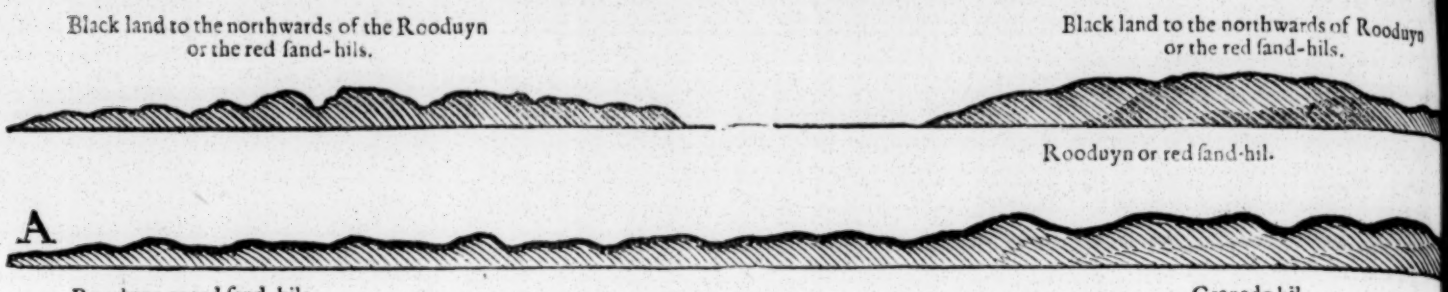
From Ayemont to Leep east and by nord 7 leagues.
From Leep to Salteesor Palos east and east and by south 7 leagues.
From Saltees to the river of S. Lucas, or Sipiona southeast and southeast and by east 8 or 9 leagues.
From S. Lucas or the point of Sipiona, to the point of Cales, the course is southeast 9 leagues.
From Cales to the poynt of the Strait southsoutheast 10 leagues.
From Cales to the great Canaries southwest 240 leagues.
From Cales to the Isle de Madera w. s. w. 200 leagues.
From C. Trafalgar to Tariffe, the course is s.e. 4 leagues.
From Tariffe to the poynt of Gibralter east and by north 5 leagues.
From the poynt of Gibraltar to Marveles northeast by north 12 leagues.
From Marveles to Fangerola e. n. e. 5 leagues.
From Fangerola to the west poynt of Mallage eastnortheast 2 leagues.
From the west point of Mallaga to the Towne of Mallaga northeast and northeast by north 4 leagues.
From the poynt of Gibralter to Mallaga northeast 23 or 24 leagues.
From Mallaga to Veles Mallaga east and east by north 7 leagues.
From Veles Mallaga to Almunecare e. 15 or 16 leagues.
From Almunecar to Salobrena east 4 leagues.
From Salobrena to Modrill east & by north 2 leagues.
From Modrill to C. de Sacrastyf e. n e. 1 leagues.
From C. de Sacrastyf to Castel de Fierro east and by north 4 leagues.
From Castell de Fierro to Adera east 8 leagues.
From Adera to Almeria northeast 5 leagues.
From Almeria to Cape de Gat southeast and by east 5 or 6 leagues.
From the poynt of Gibraltar to C. de Gat east & by north 66 leagues.
From C. de Spartell in Barbary to the poynt of Apehill, the course is eastnortheast 8 leagues.
From Apehil to the poynt of Seuta southeast and by east 2 leagues.
From the poynt of Seuta to the road of Tetuan south 5 or 6 leagues.

Heights.

The coast of the Condaet lyeth in 37 degrees and 15 or 20 min.
The Island Cales in 36 degr. 30 min.
The middest of the Strait of Gibralter lyeth in 36 or 35 degr. and. 50 min.
Cape de Spartell lyeth in 35 degr. 32 min.

How theſe Lands doe ſhew themſelves at Sea.

The land betwixt Wolves & the River of S. Lucas, ſheweth it ſelfe when you ſayle alongſt by it like as is pourtrayed in theſe three figures following.



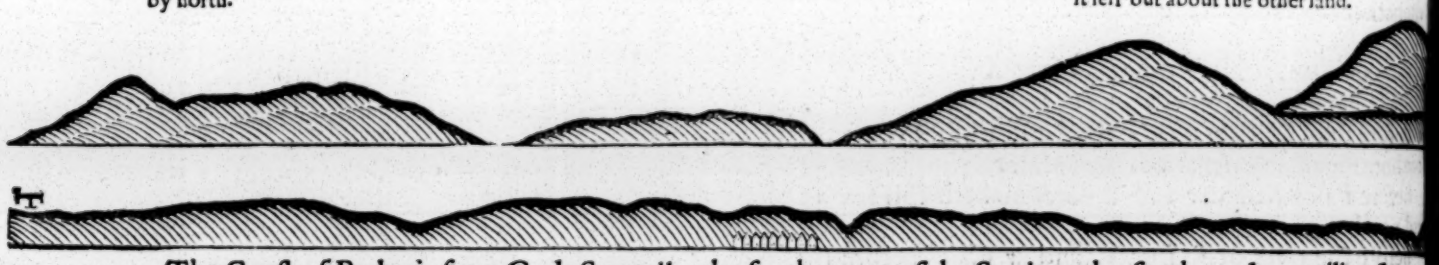
This belongeth to the former figure the AA, one to the other.



This followeth to the two former figures, the BB, one to the other.



When you ſayle towards Cales, and the mountaine of Granado commeth to ſtand eaſt from you then it ſheweth it ſelfe in this forme.



The Coaſt of Barbarie from C. de Spartell, the ſouth poynt of the Strait to the ſouthwards, untill paſt Alarache ſhewet like as it is pourtrayed in theſe 2 figures, when the Cape de Spartell is eaſt and by north from you about eight leagues.

The

HISPANIA.

PORTUGAS

BARBARI

Straet van Gibraltar

Lisbona

Barlenga

Porto Santo

I. Madera

Salvages

Palma

Graciosa

I. Fortaventura

Groot Canaria

Vegua

Formigas

Walvis

S. Michiel

S. Maria

Tercera

Gratiosa

I. S. Georgy

I. del Pico

Fayal

I. Cuervo

I. de la Flores

De Cust van BARBARIA,

Gualata, Arguyn, en Genehoa van Capo S. Vincent tot Capo Verde

't Amsterdam by Jacobus en Casparus Loots man Boeck-verkoopers op 't water inde Loots man

AFRICA.

Gualata Regio.

Arguyn Regio.

Hoden.

GENEHOA.

GAMBIA.

Tropicus Caneri

C. Blanco

C. Verde

Seche delle Graxe

Iaringen.

Sabador

Pattelau

Roodland

R. Cambis

Pindades

Iasse

Mansaga

Olyphants eyl.

R. Senega

Nemantel

Palmyten eylandt

Ialofses

Tonda ba

Gelofs

Inalle

Bonaire

Senegael

Bahart

R. Gambia

C. S. Marie

R. S. Anna

I. Goeree

I. de Bonavista

I. de Sal

I. de Mayo

I. de S. Iago

I. de Fuogo

I. de Brava

I. d. S. Nicolas

I. de S. Lucia

I. de S. Vincent

I. de S. Antonio

5 Palmes

Duytsche Mylen 15 in een graed

Spaensche Mylen 17½ in een graed

Eng: en Fr: Mylen 20 in een graed

Duÿtsche mÿlen 15 voor een graadt — Lieues d'Allemaigne 15 en un degre
Spaansche mÿlen 17½ voor een graadt — Lieues d'Espaigne 17½ en un degre
Engel en Fra. mÿlen 20 voor een graadt — Lieues Angl. et Franc 20 en un degre

Hoogen toren
Castel
Toren
Heuvelken
De Schuer
Mensor
Saffee
Mamora
Out Mamora

C. Blanco
Roocloven
Casa Cavnlgore
Cleos als Fidale
Emindra
C. Cantin
Rif
Saffia
Zuydhoeck
Noordbeck
Wierpdeets
I. Mogodor

De Reede van Punte del Gada int eÿlandt S. Michiels
Punte del Gada
Villa
Villa Franca

De Cuſt van
Barbarÿen van Out Mamora
Tot Capo Blanco

Steÿle Clif

Lÿons

Asamor

Rivier

Malagam

Steenrÿ

Tyte Vervallen Stadt

C. Blanco

De Cuſt van
Barbarÿen van Capo Blanco
Tot Capo de Geer. bÿ
bÿ Caſparus Lootsman

Criſtmen Pachuyſen

S. Critz

Moren Caſteel

Burtenmeret-

C. de Teſſelana

C. de Geer

De Reede voor de Stadt
Angra int eylandt Tercera

Os Ilhoes

Los Frailes

I MADERA

Marnſylo

Fontyael

S. Cruz

D Leeuw

Serters

Porto Santo

De
Eylanden Madera
en Porto Santo

The ſecond part of the New

LIGHTNING COLUMNE,

O R

SEA MIRROUR.

THE FOURTH BOOKE,

Of the

WESTERNE NAVIGATION,

Containing

The deſcription of the Sea-Coaſts of Barbarie, Gualata, Arguyn, Genehoe, and the Flemish and Canary Iſland together, from the Straight of Gibraltar, to Capo Verde.

The firſt Demonſtration.

In Which

Are shewed the Coaſtes of Barbarie from old Mamora to C. de Geer, together with the Flemish Iſlands.

FRom Old Mamora to Mamora, the coaſt lyeth alongſt ſouth & by weſt and ſouthſouthweſt 7 leagues. Before Mamora is a high broad ſand-ſtrand, and is not eaſy to know, when you are ſomewhat off the land. The beſt knowledge there of is this: When you come from the n. wards alongſt the shoare, you have all high land within, that you come leeſe when you come before Mamora, and when you come from the northwards, you cannot ſee the river of Mamora open before you bee paſt it, by reaſon that it lyeth into the eaſtwards, and the north point is low. When you come ſomewhat cloſe by the ſhoare, you ſhall ſee upon the high land in the Caſtle of Mamora (which the Spaniards have built there for the defence of the place) a very high maſt or ſtake, which you may ſee indifferent far off, and when it is cleare weather you may ſee alſo the high thick Tower of Salley to the ſouthwards ſtand againſt te land. Before the river lieth a Barre which with a ſpring hath 16 and 17 foote, and ſometimes more water, the Barre is oftentimes altered by the ſea. In the ſpring it lieth in commonly e. ſ. e. & thereabouts. In the later part of the yeare it lyeth in more eaſterly by the caſting up of the ſea out of the n. In the Summer the windes blow alongſt the coaſt, the moſt part of the time out of the north, which cauſeth that the current runneth there to the ſouthwards, & in the winter they blow much & ſtrang out of the ſouthweſt and ſouthſouthweſt. In the winter men muſt be very carefull to get of, betimes when the winde beginneth to come to the ſouth or ſ. e. then it is time to get of, for then commonly it ſhifteth to the ſ. w. and w ſ w. with foule weather, but when it commeth about againe to the weſtnorthweſt or northweſt, then it is like to be good weather againe.

The roade before Mamora is about a league from the land in 18 and 20 fathom, there is clean ſandy-ground.

From Mamora to Salley the coaſt lyeth ſ. w. & by ſ. & ſ. ſ. w ſix leagues, betwixt them both it is low plaine land, and ſandy-ſtrand, with double land within, which is ſo even and ſmooth, as if it were planed over. From Mamora not halfe wayes to Salley, the ſtrand ceaſeth, and from thence forth to the ſouthwards it is a shoare all of black ſteep ragged rockes with little hills, ſo that men cannot judge (when they are ſomewhat of the land) that it is double land within, by the plaines of it. When you are a league or two paſt Mamora, then you may ſee very plaine the high thick Tower of Salley, & when you ſee the foreſayd rocky shoare you may be ſure that you are paſt Mamora, that ſteepe rocky shoare continueth from thence, untill paſt Fedalle, yet betwixt Fedalle and Salley is here and there a place of white ſtrand, betwixt the rockes, but to the northwards of Salley it is not ſo, but nothing elſe then perfect rocks.

The Towne of Salley hath a little Tower, and lyeth upon the n. ſide off the river, which is a low plain point of ſand. The Caſtle hath a little Tower, and lyeth over againſt upon the ſ. poynt of the river, which is a high rocky point. There goeth a wall round about the high thick Tower, & lieth upon a point on the ſ. ſide within the River. Before the River is a Barre which oftentimes with ſtorms out of the ſea doth alter and shift, and is caſt too, ſometimes the channel runneth by one of the two poynts, & ſometimes againe right in the middeſt of the rivers mouth. Hee that will anchor before Salley, let him bring the foreſayd high thick Tower (which ſtandeth within on the River) on the poynt of the caſtle, to wit, over the ſouth point of the River, which shall then ſtand from him neere about ſouth e. & anchor there in thirty, eight and twenty, 24, 20, 18, or 16 fathom, ſo neere or farre off as he will, there is clean black ſandy-ground, neverthleſſe that the shoare thereabouts is ſo full of rocks & ſtones. Being come to anchor men muſt ſhoor a shot to cauſe the Moores to come off. From Salley to the Iſland Fedalle the shoare lyeth alongſt ſ. w. & by ſ. about 9 or 10 leagues, betwixt them both lye here & there in the ſand-ſtrand, long black rocks (as before is ſayd) ſo that oftentimes men might take it to be Fedalle. The beſt markes for to known Fedalle by is a wood of trees about a league to the northwards off Fedalle, which ſtandeth below upon the land, and sheweth like a barne. When you come ſayling alongſt cloſe by the land;

Salley.

Fedalle.

you ſhall ſee it above upon the land, but when you are ſomewhat off from the land, then you ſhall ſee the land within above the wood of trees, (or Barne as men doe commonly name it for the likeneſſe of it) alſo there lyeth a little rond hommock about 4 leagues, to the northwardes of Fedalle, which you ſhall ſee above the reſt of the land, when you are ſomewhat off from the land, but when you come cloſe by the land, it hideth it ſelfe alſo behinde the double land. The coaſt betwixt Salley and Fedalle, is very plain & ſmooth double land, ſo that there is not another ſuch hommock more betwixt them both, as that foreſayd hommock, and in regard the coaſt there abouts is altogether ſo plain, without any places eaſy to be knowne, therefore men muſt take the more ſpeciall heed unto ſuch ſmall markes, for not to ſayle paſt the place where they are bound unto.

Betwixt the foreſayd Barne or wood of trees and Fedalle ſtandeth alſo a ruinous little Towne fallen downe, in a
Monſor. rough wood, called Monſor, when you ſayle alongſt cloſe by it, you ſhall ſee yet ſome peeces of walles of it.

Road under Fedalle. To the ſ. wards of Fedalle the land is agayne higher, and where the high and low commeth together, it doth make a clift, thereby the Iſland of Fedalle is eaſy to be known, when that clift is ſ. ſ. e. from you, then is Fedalle thwart of it alſo ſ. ſ. e. from you. If you wil goe into Fedalle, then runne right with the foreſayd Barne, or wood of trees, untill you come within a league, or ſomewhat neere to the land, and then alongſt by it, and ſo you ſhall not miſſe the Iſland Fedalle, but runne in betwixt it and the maine land, when as you come by the north poynt of Fedalle, then anchor betwixt the ſtrand and the foreſayd n. poynt, but much neerer the Iſland Fedalle then the ſtrand in 6, 7 or 8 fathom, ſo that you come to lye with your ſhippe ſo farre in, that the foreſayd poynt of the Iſland doe lye n. n. w. from you, then lyeth the foreſayd Barne e. n. e. from you, and Monſor a handſpikes length to the n. wards of the Barn or wood of trees; you may alſo anchor in 12 fathom, ſo that the poynt of Fedalle lye w. and by ſ. from you.

This bight within the Iſland Fedalle, is a very bad place to lye in, for although you lye there ſo, that the poynt of the Iſland lye n. w. and n. and by w. from you, and with a Cable on the Iſland, nevertheleſſe the grown ſea commeth ſo hard rowling in about the poynt of the Iſland (when the winde is weſterly) that you might rather deſire to lye in the open ſea, then within the Iſland. From the north poynt of Fedalle ſhooteth of a ledge or riffe of rockes a Musket ſhot into ſea, the moſt of them lye high above water; within the Iſland it is very flat towards the ſtrand, the Bay on the land is a faire ſandy ſtrand, there men may get ballaſt from the ſhoare, but they muſt bee very carefull to ſtand upon their guard, for there are dangerous people.

Depths and grounds about Fedalle. Before Fedalle, to wit, to the northwards off it, thwart of the wood of trees, and alongſt to Salley, it is all ſhowld water a league or two from the land, all alongſt that diſtance it is not deeper then 23, 24, and 25 fathom cleane ſandground, thwart of into ſea from Fedalle it is alſo of the ſame depth, but foule ground.

He that will trade at Fedalle muſt anchor ſomewhat farre in, for they have there no Boats, men muſt fetch the Moores aboard with the Boat.

Upon the north point of Fedalle lieth a high hommock, which ſheweth a far off when men come in, as if it were a caſtle falne down, but it is nothing elſe then rocks. At the ſ. end of Fedalle men may goe over on foot at low water to the maine land, buth at high water the ſea washeth through at 2 places, it floweth there 7 or 8 fathom up & down.

Three leagues ſ. weſt and by ſ. and ſ. weſt from Fedalle lyeth an old ruinous town fallen downe cloſe upon the
Anafee. ſtrand called Anafee, it is a long Town with many towers, amongſt the reſt one high thick tower almoſt like the tower of Salley, but men muſt bee indifferent cloſe by it before you can ſee it. When you are thwart of Anafee, you may yet ſee the wood of trees to the northwards of Fedalle, which ſtandeth then to ſee to from far as a ſayle in the water, 2 leagues to the ſouthwards, (or rather to the weſtwards) of Anfee, or Anafee, is a ſteepe poynt with red cliffs, which ſeem a far off as if they where houſes ſuch ſpotters men ſhall find at divers places on the coaſt.

From Anafee to Azamor the coaſt lyeth ſ. w. and by w. Azam.
weſterly 18 leagues betwixt them both lyeth another fallen place called Lyones. Azamor hath a poynt lying out on the eaſt ſide, when you come ſayling alongſt the ſhoare from the northwards, Azamor lyeth then about or behinde that poynt upon the ſtrand, but ſtandeth high. A little paſt Azamor lyeth a river, and thereabouts are ſome towers in the low land.

Three little leagues to the weſtwards of Azamor lieth the town of Maſagam, on a white ſtrand cloſe by the ſea Maſa-
ſide this town is inhabited by the Portugals, or Spanjards, gam.
it hath no towers, and ſheweth to ſee to off at ſea, in white ſpots againſt the land. When you are thwart off from it, you ſhall ſee to the ſ. wards the high tower off Tyro (which is a town fallen down about 4 leagues to the Tyro.
w. wards of Maſagam) allmoſt like the tower of Anafee. A little to the w. wards of Maſagam, at the w. poynt of the Bay, ſhooteth of a ledge or riffe of rocks, almoſt a league off into ſea, where of the rockes at high water, lye moſt under water, and at low water are uncovered. He that will anchor there and is not well acquainted, muſt take in a Pilot, which may bring him to a place where is good anchor ground, for although that it be a great Bay, yet never. theleſſe there are few places where the ground is clean; but is at many places foule, ſo that but few ſhips ſhould be able to lye there in clean ground, when you lie in the right road, then lieth the e. point of the Bay e. and the w. point about n. w. from you.

About a leag. to the w. wards of Tiro lieth a ſteep point when you come from the e. wards alongſt by the ſhoare, you ſhall ſee no more land without the point, untill that you come near it, when you begin to get it upon your broad ſide, then there commeth out to the weſtwards a great ſquare cliff, which is very eaſy to be known, and is whitish with reddish ſpots, and ſeemeth a far off as if it were a wall. This point is called after that white poynt, C. Blanco. About 3 leagues to the. w. wards of this C. Blanco, C. Blan-
ſtandeth a little tower upon the high land, near by a valley co.
called Caſa Cavalgera, and 2 leagues more to the w. wards Caſa
lieth upon the high land another little houſe called Emin- Caval-
dra, but you muſt be cloſe by the land before that you can gera. E-
ſee it. From the foreſayd C. Blanco to the C. Cantin, the mindra.
coaſt lyeth w. ſ. w and ſ. w. and by w. about 9 leagues.

The C. Cantin is an even plaine point, when you are to C. Can-
the n. wards off it, is sheweth flat towards the w. & going tin.
off towards the ſea: there ſtandeth a fire-tower upon it, but very ſmall, that ſometimes you can hardly ſee it. If you come from the northwards, or from C. Vincent, and are bound to Saffia, then ſet your courſe ſouth and ſ. and by eaſt, and then you ſhall fall with the land 4 or 5 leag. to the e. wards of C. Cantin, or if you ſayle a more weſterly courſe you ſhall runne till you come in the height of 32 degr. & a half, and then the C. Cantin ſhall lye due e. from you, it is better to fall a little to the eaſtwards off the C. then to the w. wards of it, becauſe the winds blow there moſt common northerly. If you fall to the eaſtwards of the C. the coaſt lyeth there ſ. w, and by w. and w. ſ. w. and it is even plaine land. About 10 leagues to the e. wards of the C. lyeth that little town Tyro, with a high white tower upon the ſea ſide, & 5 or 6 leagues more to the weſtwards (betwixt Caſa Cavalgero and C. Cantin) you ſhall ſee a little bight or Bay, thereabouts lye upon the ſtrand by the water ſide, great black rockes, which ſhew as if they were wrakes of ſhips, and then forth alongſt to the C. it is a faire flat ſandy ſtrand. From the C. ſhooteth off a ledge off rocks ſomewhat of into ſea, which men muſt avoid when they ſayle about the Cape.

From C. Cantin to the north point of Saffia, the coaſt lyeth ſ. or ſomewhat more weſterly, 5 or 6. leag. betwixt them both it is a ſteep rocky land without ſandy ſtrand, but above upon it plaine and even. A league to the ſouth-

wards

wards of the C. lieth a riffe or shoale by the shoare, by ſome called the Gold-bancke and lyeth about a league off from the land: at ſometimes of the year there is much fish to be taken.

To the ſouthwards of the Bay of Saffia is high uneven, and moſt of all double land, but to the ſouthwards of it, it is even & plain, thereby men may eaſily perceive or diſcern whether they be to the northwards of Saffia, or to the ſouthwards of it.

If you will anchor in the bay or road before Saffia, then bring the north poynt (whereupon ſtandeth a tower) a little more weſterly then n. from you, & anchor then in 18 fathom. Or if you will anchor further in de Bay, then bring the foreſayd north poynt n. n. w. or a little more northerly from you; and then the northermoſt of the two north points shall bee a ſhippes length without the ſouthermoſt or the next unto you, run then ſo farre to the ſouthwards untill that the tower were men doe land with the boats (which is a high ſquare tower ſtanding below even within the wall of the towne) come right over a towher which is faſt to the wall, which commeth off from the Caſtle above to the ſouthwards, ſo that the foreſaid thicke tower below come right over the Haven, betwixt the point where the caſtle ſtandeth upon the water ſide, and the rocks where men goe in betwixt. Or elſe anchor that the high Caſtle of Saffia ſtand e. and by ſ. and e. ſ. e. from you, there it is 16, 17 and 18 fathom deepe, good fine ſandy ground. You may alſo anchor ſo farre within in the Bay in 15 & 16 fathom that the north point come to be n. w. & n. w. & by n. from you. Theſe are the Summer road, in the Winter men muſt anchor further from the land in 28 or 30 fathom, there the ground is courſe ſand. Men may boldly run in before Saffia into the road by night, there is nothing that they need to feare, which may doe them hurt, but the land.

About two leagues from Saffia, lyeth te ſouth point of the bay, which is a low point that lieth out, and two leagues to the ſouthwards of it lieth another ſteep rocky point wthout ſandy ſtrand. By it goeth in the River Tanſit up into the land unto Marrocos.

From the poynt of Saffia to the Iſland Mogodor, the coaſt lyeth ſouthſouthweſt 19 or 20 leagues.

Againſt the northeaſt end of the Iſland Mogodor, there shooteth off from the maine land, a great tow off rocks; being hard sharpe rockes, whereof the outtermoſt or thoſe that lye next to the Iſland Mogodor, lye high above water: He that commeth from the northwards, and will ſayle in behind the Iſland Mogodor, muſt runne in betwixt the Iſland and the foreſayd rockes, cloſe in alongſt by the Rocks. It is there in comming in, betwixt the Iſland and the Rockes five fathom deep. Within the foreſayd Rocks lye alſo ſome other Rockes on the larboard ſide, which at high water are under water, and at low water are uncovered. When you come to the end of them, you may luffe up about by them towards the maine land, and anchor there within them in 3 fathom at low water, there is good ſand-ground. But yet nevertheleſſe it is not there very good lying, for by reaſon of the breakingh of the Sea upon the foreſayd rocks, there goeth ſometimes a great Sea, ſoo that it is not good lying there with a ſtorme, but further in, under the Iſland it is good lying in two fathom and a halfe. From the ſouth-end of the Iſland lyeth off a little riffe towards the maine land almoſt to the foot ſtrand, and to the ſ. wards off that foreſayd little riffe, lyeth a bancke off from the maine land almoſt a league off into ſea. If you wil ſayle out at the ſouth end, then run alongſt by the shoare of the maine land, untill that you bee about the foreſayd riffe, and run out then upon your lead along by the banck, & then you ſhall preſently get deeper water, of 4, 6, 8, & 10 fathom, then you may ſayle there where you deſire to be.

From the point of Saffia to C. de Geer, the courſe is ſouthſouthweſt about 43 leagues, but from Mogodor the ſame courſe is about 22 or 23 leag. It is there betwixt them both a faire flat ſand-ſtrand, with bouble land, which at ſome places is very high.

About 8 leagues to the northwards of C. de Geer lyeth a point called C. de Taffalana, under which men may ride in good ſand-ground for eaſt and northeaſt windes. The C. de Geer is lower then the land to the northwards of it, and falleth to the ſouthwards flat off into ſea, which men shall firſt perceive when they come within 3 or 4 leagues of it. About 4 leagues to the northwards of the Cape lyeth a high Hommocke within the land, & further northwards the land is yet higher; but when you come thus from the northwards near C. de Geer, you ſhal ſee no more land to the ſouthwards of it. When you come to the point you muſt give the riffe a birth that lyeth off from it; and runne about by it, and then forth ſoutheaſt and by eaſt, and ſoutheaſt 7 or 8 leagues to S. Cruz, and then you ſhall ſee the Moores Caſtle ſtand on the high land: thwart of it lye a row of Rockes, about a Calliver ſhot in length, elſe it is al cleane and cleare coaſt. For to anchor there in the Bay, runne ſo farre into the Bay, that the foreſayd Moores Caſtle ſtand north from you, and the Chriſtians packhouſes northeaſt, there it ſhall be deepe (to the ſouthwards or the foreſayd row of Rocks) 7 and 8 fathom, the north point or C. de Geer, ſhall then bee from you northweſt and by weſt, there is the beſt road. In the Summer time you may anchor nearer to the ſhoare, untill you come in ſix and ſeven fathom. When you ſayle from C. de Geer towards the playe or the Road, you muſt be carefull to keepe cloſe aboard of the land of the Cape, and run alongſt by it, untill you come before the Caſtle. If you runne farre off from the ſhoare, you ſhall with northerly windes (which blouw there much) be conſtrained to come in n. e. & n. n. e. again for to recover the ſhoare, therefore it is beſt to keep cloſe aboard the high land. He that ſhould come into the road here by night, muſt not (upon a certain great forfeiture) come nearer the ſhoare then in 12 or 14 fathom.

C. de Taffalana.

Riff of C. de Geer.

Road before S. Cruz.

In this Road men muſt be very carefull and ready with their anchors, the ſmalleſt bower muſt be alwaies laid out for the wind which bloweth off the land, and the other anchor to Seawards. The ſhoot anchor muſt bee alwayes ready againſt a ſtorme (which men may very well perceive before by the ſwelling or riſing of the ſea) to bring it out in the ſouthweſt. Alſo it is needfull to keepe the foreſayle to the yard, for to helpe themſelves with it the beſt that they can if it ſhould happen that they ſhould be forced from their anchors.

In this Bay is much fish to be taken, when men lie there in the road, they take their turnes to go out to fish.

From the C. S. Vincent ſouth-weſt and by weſt 140 leagues, & from the Cape de Finiſterre ſouthſouthweſt and ſouthweſt and by ſouth 232 leagues, lyeth the Iſland Porto Santo lying ſoutheaſt & northweſt upon each end of this Iſland lyeth a great rock. The road on the ſ. weſt ſide, to the eaſt wardes of the ragged rock, before a little haven where men may lye landlockt with boats.

The Iſland Madera lyeth from Porto Santo ſ. w. 16 leagues, ſ. wards from the eaſt poynt of Madera, lie 3 ſmall rocky Iſlands, being called the Serters, the northermoſt is the ſmalleſt, and lieth about a league from the land from the foreſayd point, the ſouthermoſt is the greateſt, & lyeth 4 leagues from the land. He that commeth from the n. wards, or from Porto Santo, may ſayle through betwixt them and the poynt of Madera, it is there betwixt them broad & wide, & alſo cleane & cleare every where, onely at the foreſayde e. poynt of Madera lyeth a ſunken rock, where of men muſt take heed.

Porto Santo. Madera. Serters.

At the ſ. ſide of the Iſland before the Towne S. Cruz is a good road in twinty fathom, but before Fonſiall is the chiefeſt Road for to lade: to the weſtwards of the Touwne lyeth a great rock with a croſſe, called the Lion, by it is the beſt lying in 30 or 40 fathom.

C. Cruz.

At the ſouthweſt ſide before Maraſilo is alſo good anchoring in 16 or 18 fathom. In all theſe foreſayd places is good ground for to anchor in.

Salvages. Betwixt Madera and Teneriffe lyeth the little Iſland Salvages, to wit, ſouth from the Serters forty leagues. North from the northeaſt poynt off Teneriffe ſeven and twenty leagues, and northnorthweſt from the northeaſt poynt off Great Canaries, forty, or two and forty leagues it lyeth ſ. w. and northeaſt and is about a halfe league long The ſ. w. end of Salvages is foule farre off into ſea, therefore runne rather about to the eaſtwards of it then to the weſtwards. Three or 4 leagues ſ. w. from that poynt, amongſt other rockes lyeth one great rock which sheweth a far of like a ſayle. Under the ſ. e. ſide of the Salvages is a good road for a n. w. and weſt wind.

Saint Michaels. Madera and the Iſland S. Michaels lye n. w. and ſ. e. 135 leagues diſtant. At S. Michaels, the road is at the ſ. w. ſide off the Iſland, when you come about one of the two poynts, either from the eaſt or weſt, then you shall ſee two little towns. Before weſtermoſt, called Punte de Gada, or Punt Alagato, is the Road in 20 and 25 fathom.

Punto de Gada.

Before the eaſtermoſt little towne lyeth a little Iſland, betwixt that and the land of S. Michaels it is 5, 6 and 7 fathom deep. Betwixt theſe two little townes, the coaſt lyeth w. n. w. and e. ſ. e.

Tercera. From S. Michaels to Tercera, the courſe is n. w. and by w. foure and thirty leagues. Under Tercera the road is on the ſ. ſide of the Iſland, to the weſtwards of the rockes, right before the towne Angra, betwixt two points that lie out, upon each off them ſtandeth a Caſtle for defence off the ſhippes which lye there in the Road, the weſtermoſt off the two poynts lyeth a good wayes further out to ſeawards then the eaſtermoſt, and hath upon the end of it, two very high, called Braſil, when you come out off the ſea, either from the eaſtwards, or the weſtwards, it ſeemeth a farre off as if it were aſunder from the land. Theſe two foreſayd hills upon the poynt off Braſill, are ſo high, that in cleare weather men may ſee from thence 16 or 17 leagues farr off into ſea. Upon it ſtand 2 pillars, which men may ſee every where in the towne Angra, and a watchman thereby for to keepe watch, and to give them off the towne warning off the ſhippes that come about the Iſland. As many ships as hee ſeeth come from the weſtwards or the ſouthwards, that is, from the West-Indies, Braſill, or the Portingals Indies ſo many Flags he ſetth up upon the Pillar towards the weſt, when he ſeeth more then five ships, then hee ſetteth up a great Flagge, which ſignifieth a whole Fleet. Likewiſe hee doth the ſame upon the other Pillar towards the eaſt, for the ſhippes which he ſeeth come from the eaſt, from Portingall or from the northwards, ſo that there cannot a ſhippe come thereabouts, but men may ſee it preſently by that token in every corner and ſtreet of the Towne.

Angra.

For to layl into the road of Terſera. He that commeth from the eaſtwards, or the northwards and is bound into the Road of Tercera, let him run faire by the land off the eaſt poynt, and alongſt by it unto the 2 little Iſlands, called the Ilheos, which lye a little to the eaſtwards of the road, about a bow shot one from the other. Men may run alongſt to the ſouthwards of theſe Iſlands, or to the northwards of them, as they will, and alſo betwixt them both. Betwixt theſe little Iſlands and the maine land of Tercera, it is a great cannon shot broad, and 15 and 16 fathom deepe, through betwixt the little Iſland it is 5 and 6 fathom deepe cleane ſand-ground. Somewhat to ſeawards of theſe little Iſlands, lye 3 or 4 rockes above water, called Los Frayles. Being paſt theſe foreſayd litte Iſlands, you muſt ſayle to the weſtwards, untill that you come neare to the foreſayd poynt of Braſill, a little to the eaſtwards of it you muſt anchor before the town of Angra in 10 or 12 fathom, or elſe men ay their ſea-anchor commonly in 16, and their ſmaller anchor towards the land in 8 or 9 fathom. Men lye there landlocht for a ſ. w. and n. e. and alſo for an e. n. e. winde, but a ſ e. winde bloweth there flat open in. On the w. ſide of the point of Brazill is alſo a great ſandy Bay for to anchor in before a village, called S. Martin.

Los Frayles.

Three leagues to the eaſtwards of the Towne Angra, lieth a bight, called Porto Judeo, there the Spaniards landed with their forces, when they tooke in the Iſland from the Portingals.

He that will ſayle from Tercera to Fayall, let him ſet his courſe w. ſ. w. to the e. point of S. Georges, which is from thence ten leagues aſunder. Further, betwixt the Pico & S. Georges through to Fayall are 16 leagues, it lyeth moſt w. n. w. through betwixt them & the Iſland Fayall lyeth to the weſtwards of the Iſland of the Pico a great league aſunder off from it.

He that will anchor in the Road of Fayall, let him anchor right before the Village of Fayall in 14 or 15 fathom, there is ſand-ground; but there goeth a hard tide of flood and ebbe.

On the ſ. w. end of the Iſland Fayall lieth a little haven for to ſayle in there, you muſt run in by the ſ. w. point, ſo lang about by the shoare, untill that you ſee the haven open, ſaile alongſt about by the ſ. w. point untill that you come in the narrow, betwixt the rocks which lye of from the weſt ſide, ſo ſoone as you come within the rockes let preſently your anchor fall in 5 fathom, & bring your hawſers on the eaſt ſide on land faſt to the pales, which are there made for the purpoſe: the haven is little ſo that men may lie in it with no more then with 4 or 5 ſhips. Further in it is shoale water.

Of the Tydes and Courſes of the Streames.

On the foreſayd coaſts maketh high water a ſ. ſ. w. & ſ. w. and by ſ. moon.

Courſes and Diſtances.

From C. Spartel to C. Cantin it is ſouthweſt ſoutherly	85 leagues.
From C. Spartel to Madera weſt & by ſouth and w. ſ. w.	200 leagues.
From C. Cantin to Madera weſt	130 leagues.
From C. Cantin to S. Vincent north	90 leagues.
From C. Cantin to Teneriffe ſ. w. and by w.	148 leag.
From C. Cantin to C. de Geer ſ. ſ. w.	500r52 leagues.
From C. de Geer to C. de Non ſ. ſ. w. and ſouth & by w.	27 leagues.
From Cape de Geer to the point of S. Cruz ſ e.	5 leagues.
From C. de Non to Oſſin ſouth	13 leagues.
From C. de Non to C. de Bajador ſ. w. and by w.	69 leag.
From C. de Non to C. de Bajador ſ. w. ſomewhat weſterly.	110 leagues.
From Saffia to Madera and e. and w.	130 leages.
From C. de Geer to Madera w. n. w.	123 leagues.
From S. Michiels to Tercera n. w. and by w.	34 leagues.
From Tercera to the eaſt end of S. Georges weſtſouthw.	10 leagues.
From the eaſt end of S. Georges to Fayall weſtnorthweſt	16 leagues.
From Saint Michaels to the C. de Finiſterre eaſtnortheaſt	247 leagues.
From Tercera to Roxent, or the River of Liſbon e. at leaſt	267 leagues.
From Tercera to C. de Finiſterre eaſtnorth e. & e. & by n.	280 leagues.
From Tercera to the Lizart n. e. &. by e.	287 leagues.

Heights.

Maſagam lyeth in	32 degr. 46 min.
C. de Cantin lyeth in	32 degr. 32 min.
The land Mogodor in	31 degr. 18 min.
C. de Geer in	30 degr. 10 min.
C. de Non in	28 degr. 32 min.
C. de Bajador in	26 degr. 10 min.

Hor

Pascaarte voor een gedeelte der

CANARISE

Eylanden, als Canaria, Teneriffa, Forteven
tura etc.

't Amsterdam
By Jacob Theunisz in Lootsman.

Palma
S. Cruz
Las Sacordas
Rammelbreede
Ferro
Gomera
Punte de Naga
Pico
S. Cruz
Pico
Tene
riffa.
Groot
Canaria

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een graet

De Ingang van
LANCEROTA
als Porto de Naos. en
Porto de Cavallos

LANCEROTA

Capen oste warders

Porto de Naos

Capen oste warders

Porto de Cavallos

Sdvages

C. Gabrion

L. Forteventura

Bergh met de Peylaen

C. Lobeson

Lancerota

Ile de Lobos

Pto de Cavalles

The ſecond Demonſtration,

In Which

Are to be ſeene the Canary Iſlands.

THe chiefeſt Iſlands of the Canaries are 7 in number, Lancerota, Forteventura, or Porteventura, great Canaries, Teneriffe, Gomera, Palma, and Ferro. The Iſland Lancerota lyeth from Cape S. Vincent ſouthſouthweſt diſtant about 165 leagues. It hath one haven upon the northeaſt end, betwixt the two Iſlands Alagranca and Gratioſa, where men may come in from the northwards & lye landlockt for all winds; it is deep there 10, 15, and 20 fathom, and they may ſayle out againe to the ſouthwards along by Lancerota. At the eaſt ſide of Lancerota is a good road before the Towne of Lancerota, there lyeth a banck to the northwards of it, which men muſt avoyd, and run about to the ſouthwards of it, there they may anchor in 10, 11, and 12 fathom: on the ſame ſoutheaſt ſide lye alſo two bad havens a great shot of a caſt peece one from the other, the northermoſt is called Porto de Naos, & the ſouthermoſt Porto de Cavallos, which we have demonſtrated in a large volume in the northweſt corner of this card, & shewed the dephts with number of feet at high water and ſpring-tide.

Porto de Naos, the deepeſt of theſe bad-havens, goeth in northweſt and by north betwixt two ledges of rockes, there ſtand two beacons of heapes of ſtones, in manner as the warders of Norway, which you muſt bring and keepe one in the other, and ſayle ſo right in through betwixt the two foreſayd ledges of rockes. The ſhoaleſt of the Barre betwixt the two ledges of rockes, is but a short ſpace, a great shippes length long, and is deepe at high water 17 foot, and at tow water ſeven foot, ſo ſoone as you shall be over, it will preſently bee 20, 23, 26, & 28 foot deep, then you muſt edge up n. and then preſently northeaſt & anchor behinde the rockes which lye to the northwards of the Barre, in the Chonnell the ground is rocky, hard, and uneven. If a ship should come to ſtrike there it should preſently be broken. The ledge is ſo without as it is within, very ſteep, ſoo that you may come very cloſe unto it, where the anchor ſtand marked, it is altogether cleane ſandy ground, 30 & 34 foot deep at high water, with a ſea wind there can goe here a great ſea, but that happeneth ſeldome, for the winds doe blow moſt out of the n. & n. e. and therefore it is almoſt alwayeth there ſmooth water. This haven is veri narrow betwixt the rockes, which lye to ſeawards of you & the shoare, it is but a little more then a great cables length broad, and from the havens mouth to the main land about a Cables length & halfe. The Havens mouth alſo is not broad, but at high water the rockes doe flow a good wayes on both ſides under water, which at low water againe are uncovered.

Betwixt Porto de Naos and Porto de Cavallos lye two little Iſlands, the northermoſt is the greateſt, at high water men may goe through with boats within the Iſlands, into Porto de Cavallos, but not with ships for at low water it falleth dry there within. Upon the ſouthermoſt little Iſland ſtandeth an old Caſtle fallen downe, which here to fore hath beene ſpoyled by Englishmen. Form the ſouth ſide of that little Iſland shooteth of a riffe, & to the ſouthwards or the weſtwards of it lyeth in the Barre, which is very narrow, not above ten fathom broad, upon the maine land ſtand alſo tho little beakons, as at Porto de Naos, which you muſt bring one in the other, and ſaile ſo right in. At high water and ſpring-tide there is no more then twelve foot water, or an halfe foot more, the ground in the havens mouth is alſo hard, & nothing elſe then rocks, where you muſt goe in over, but within it is cleane ſandy ground where you may lye a ground without any danger, with a shippe that draweth tenne or eleven foot water. At the highſt water tow moſt part of the rockes on both ſides of the Havens mouth, lye under water, that is many places men may goe over them with thats. At low water there remaineth in this Havens mouth no more then a foot, or a foot and a halfe depth, ſo that a ſhippes boat cannot goe in; within men lye landlocht for all windes, and although it blow very hard, yet the water is alwayes ſmooth. In both theſe havens a ſouth and by weſt and north and by eaſt moone maketh high water. Neare the Havens there are no houſes where Spaniards or Moores doe dwell, then only by Porto de Cavallos a little church, where they have Maſſe ſayd on Sundayes, when ſhippes lie there. Men go from thence betwixt the Mountaines to the twon, which lieth 3 leagues from thence. He that wil come here muſt provide hemſelfe with freſh water, for there is very ſeldom freſh water to be gotten. Upon this land there groweth neither fruit nor wine. In ſome good years it giveth out Wheat, Bally, & Orſilly, the Inhabitants are Moore under the command of the King of Spaine.

Betwixt Lancerota and Forteventure lyeth a little Iſland called Iſle de Lobos, which is on the outer ſide, to wit, on the n. weſt ſide, very foule. Men may anchor on both ſides of that iſland in 15 or 20 fathom, alſo in ſix fathom a shot of a caſt peece ſouthweſt and by weſt from the weſt point off the iſland, there men may lye land-lockt for all windes, except for a northnorthweſt and ſoutheaſt windes. The coaſt of Forteventura is at the northeaſt end very foule, with many riffes that lye out, whereupon the ſea doth break exceedingly.

The Iſland of great Canaries lieth from Forteventura weſt 19 or 20 leagues diſtant. The road there lyeth, at the eaſt ſide of the Iſland, behinde the n. e point, thwart off a Caſtle that ſtandeth upon a Chindle. The foreſaid northeaſt point, is a very high point, with a long ſmall and low ſandſtrand faſt to the other land, ſo that when it is five or ſixe leagues northweſt or ſoutheaſt from you it ſeemeth to be an Iſland aſunder off from the other land. If you deſire to go in there into the road, then ſayle about by that northeaſt point, alongſt by the Iſolettes, leaving them on the ſtarboard ſide of you untill that the Caſtle do lie near about northweſt and by north from you, anchor there in eight, nine, ten, or twelve fathom, then lieth the north point northeaſt & by north and the ſouth poynt ſouthſoutheaſt from you.

At the ſouth end of the great Canaries is a faire ſand-bay called Maſpalomba, there is a good road for ſoutherly windes, & freſh water to be gotten.

The north point of the great Canaries, and the northeaſt point of Teneriffe, called Punte de Nago, lie weſtnorthweſt, and eaſtſoutheaſt diſtant 21 leagues. In Teneriffe is a road on the ſoutheaſt ſide before the town S. Cruz, there is a faire ſand-bay, a little to the northwards of the town is the beſt road in 20, or 24 fathom, and then Punte de Nago, the northeaſt point of Teneriffe lieth northnortheaſt from you, and the ſouth point ſouth and by weſt. When the Pico of Teneriffe is weſtſouthweſt from you, then are you open before this road of S. Cruz, and when you lye in the road of S. Cruz, you may ſee the Iſland of great Canaries ſoutheaſt from you about 13 leagues.

On the northweſt ſide of Teneriffe lieth the road of Garrichica, from the northeaſt point Punte de Nago weſtſouthweſt and ſouthweſt and by weſt eight or nine leagues; He that will anchor before Garrichica, let him anchor to the weſtwards of the rock with the croſſe, called the Lion, ſo that the foreſayd rock do lie ſoutheaſt and by eaſt and ſoutheaſt from him, then he ſhall lie right be-

fore the towne, and may see right into the street of the town, through the Cloister of S. Dominicus, there is clean ground in 36 or 40 fathom, the Pieck liet then over the w. side off the town, nearer to the land, or to the rock then in 35 or 36 fathom it is not cleane, & westwards towards the riffe Lapania it is also foule ground. This is a dangerous road, therefore every one that commeth here, must be very careful to have their anchors, cables, and sailes very preedy and ready for to shift roads as soon as it beginneth to be a storme.

There is also a little haven before Garrichica, where men may lie with a few ships. For to sayle in there, you must have a Pilot. On the west side of the havens mouth lieth a rock under water, but the sea breaketh alwayes upon it, you may anchor within in the haven in five or six fathom, and must bring two anchors out a head to seawards, with a cable on the rocks, and a anchor out a stearn, on the land, so that the ships cannot wend too and again, the ground is there foule, you must buye up your cables with buyes and cask for to keep them from the ground. This is a good haven in Summer, then it is commonly good weather, but in the winter it is not good to com in there with a ship, for the grown sea out of the n. west commeth runnig in there sometimes so forcible and strong, that it is not possible to hold a ship, although she had 10 anchors out. It hath hapned certain years past that there was lost in the same haven a great many ships, and a great many houses of the same towne washed away with the great water.

Betwixt Garrichica and the east end of Teneriffe, are three lading places more for to lade wine at, as Maramela Relechio, and Oratama.

At the southwest end of Teneriffe lieth also another little haven or Bay where is much wines laden called Adessa, there is alsoo good lying except it be with a s. w. winde, which bloweth there open in.

From Teneriffe to the Island la Palma, the course is westnorthwest twenty leagues. On the southeast side la Palma, lieth a faire Bay, with a town and lade-place called S. Cruz. He that commeth from the northwards, and desireth to anchor in the road, let him run so far in the Bay untill he be to the southwards, or past the head, or the bridge, & anchor there in five and twenty or 30 fathom. In winter time men must not anchor so near the strand, because oft the southeast or southsoutheast windes, for then they shold lie too near the strand. Men lye there moored with two anchors for the sea winde, with a small anchor out a stearn for to keep the ship right in the road, there lyeth to the eastwards of the towne a high white rock with a crosse, there is the best road. A little to the northwards of the town, is a faire sand-bay, there is good anchoring in 20, 30, or 35 fathom, according as men will lye far off, the Road is called the Rammell road. When men lie in the road of Pulmy, they may see the Pieck of Teneriffe lie eastsoutheast from them. The Island Palma is very high and full of trees, whereby it is easy to bee known.

On the southwest side of la Palma is another place, where men lade wines called Tassa Corda.

About 5 leagues west from the west end of Teneriffe, lieth the Island Gomera, which hath on the n. e. side a good haven of 10 fathom deep, where is good lying almost for all windes, better then in any of the other Islands, but there is nothing to lade: Men may alsoo anchor without before the haven in 20 fathom, but they must shift roads there as at Garrichica.

The road of Adessa in Teneriffa lieth right over against it, east off from it about 5 leagues.

The road of Palma lyeth from this haven in Gomera northwest and by north 16 leagues.

The Island Ferro lieth from the Island Palma south and by west, distant 13 leagues.

Of the Tydes.

On the Islands of the Canaries maketh at the most places the natural tyde, to wit, a southwest and northeast Moone the highest water.

Of the Courses of the Seame.

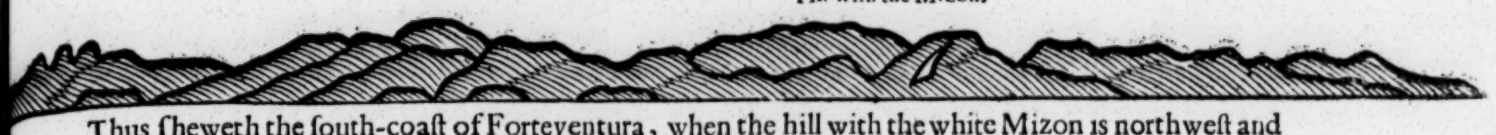
From the west poynt of Forteventura to the Island of great Canaries east and west 19 or 20 leagues.
From the north poynt of the Canaries to Punte de Nago the northeast poynt of Teneriffe westnorthw. 21 leag.
From Punte de Nago to Garrichica westsouthwest and southwest and by west 8 or 9 leagues.
From Teneriffe to Isle de Palma w.n. w. 18 leagues.
From the west end of Teneriffe to Gomera w. 5 leagues.
From the Palma to Ferro south and by west 13 leagues.
From great Canaries to Salvages northnorthw. 40 leagues.
From Garrichica to Salvages northnortheast and north and by east 30 leagues.
From Teneriffe to the Isle de Madera north 72 leagues.
From great Canaries to the east end of Madera north and by west 85 leagues.
From la Palma to Madera north and by e. 60 leagues.
From Salvages to the Serters of Madera n. 46 leagues.
The outermost of the Serters lyeth from Madera 4 leag.
From Madera to S. Michaels n. w. 136 leagues.
From the west end of Forteventura to the C. de Bajador south and south and by west 20 leagues.
From Lancerota to the Cape S. Vincent northnortheast 180 leagues.
From great Canaries to Cales northeast 240 leagues.
From the great Canaries to C. S. Vincent, northeast and by north 210 leagues.
From great Canaries to Roxent northnortheast somewhat easterly 240 leagues.
From great Canaries to C. de Finisterre northnortheast somewhat northerly 370 leagues.
From Teneriffe to the Lizart northnortheast distant 467 leagues.
From the Palma to Cape S. Vincent n. e. 224 leagues.
From Madera to Cape de Geer eastsoutheast 128 leagues.
From Madera to Saffia east 130 leagues.
From Madera to Cales eastnortheast 200 leagues.
From Madera to Roxent northeast 178 leagues.
From Madera to the C. Finisterre northeast and by north somewhat northerly 245 leagues.

Heights.

The Island Lancerota lyeth in 28 degrees. 35 minutes.
The north end of the great Canaries lyeth in 28 degrees. 14 minutes.
The north end of the Teneriffe in 28 degrees. 40 minutes.
Isle de Palma in 28 degrees. 10 minutes.
Salvages in 30 degrees.
The southermost part of Madera in 32 degrees.
But the northermost in 32 degrees, 30 minutes.
Porto Santo in 33 degrees.

How theſe Lands doe ſhew themſelves at Sea.

Hil with the Mizon.



Thus ſheweth the ſouth-coaſt of Forteventura, when the hill with the white Mizon is northweſt and by north about a league from you.



Thus ſheweth the northweſt ſide of great Canaries.



Thus ſheweth Teneriffe, when the Pico is weſtſouthweſt from you, and then you are open before the Roade of Saint Cruz.



Thus ſheweth Teneriffe when the Pico is ſoutheaſt from you, and then are you open before the Roade of Garrichica.



When la Palme is about eaſt from you 16 or 17 leagues, then it ariſeth thus.



When Porto Santo is ſ. and by w. from you about 9 leagues, then it ſheweth it ſelfe thus.



Thus ſheweth the Iſland Palma being ſouth and ſouth and by eaſt nine or ten leagues from you.



Thus ſheweth the Iſland Palma being ſouthweſt & by ſouth 4 or 5 leagues from you.



When Salvages is eaſtſoutheaſt five leagues from you, it ſheweth it ſelfe thus.



When Salvages is eaſtſoutheaſt five leagues from you it ariſeth thus.



When Porto Sancto is about ſouth, 5 or 6 leagues from you, then ſheweth it ſelfe thus.



Thus ſheweth the Iſland Madera, when you come from the northwards, & that the middeſt of the Iſland is 10 or 12 leagues from you, the ſoutheaſt end is very ragged when you are neere by it, the northweſt end is a ſteep point going ſloping downe.



Thus ſheweth the Iſland Madera being ſouthweſt from you.



When Madera is weſtſouthweſt from you 13 leagues, it ariſeth thus.



When Madera is ſouth from you 16 leagues, it ſhewe il ſelfe thus.

FINIS.